

Installation Guide

Installing Copper Pillars, Thermal Solution & M.2 Module(s) on Kontron 2.5"-SBC

➤ Application

The installation guide is applicable to Kontron's 2.5"-SBC products.

➤ Installation Kits

Depending on the ordered configuration, Kontron's 2.5"-SBC board may be supplied with a (1) screw copper pillar kit, a (2) thermal solution kit and / or a (3) M.2 Key B module adapter kit to facilitate developmental test and evaluation at the customer side by providing a quick and easy heat dissipation and M.2 module installation tool.

(1) Screw Copper Pillar Kit

The screw copper pillar kit is intended for elevating 2.5"-SBC to ensure proper airflow and to prevent overheating. It consists of the items listed in the following table:

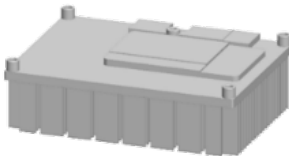
Kit	Screw Copper Pillar Kit			
P/N	0ZHK35SBC0000001			
Item	①	②	③	④
Legend				
P/N	0H020E504000100L	0H020E401900100L	0H0101301500100L	0H0101300500100L
Description	Long Copper Pillar	Short Copper Pillar	M3 Screw X 15L	M3 Screw X L5
Quantity	4	3	4	1



Item ② and Item ④ are redundant accessories in the kit package and not applicable here.

(2) Thermal Solution & M.2 Module Installation Kit

The thermal solution & M.2 module installation kit is intended for dissipating heat from the processor, SDRAM, eMMC and LAN controllers mounted on 2.5"-SBC and elevating 2.5"-SBC to ensure proper airflow and to prevent overheating as well as elevating and / or securing (a) M.2 module(s) if any. It consists of the items listed in the following table.

Kit	Thermal Solution & M.2 Installation Kit			
P/N	Depending on 2.5"-SBC			
Item	⑤	①	③	
Legend	 Depending on 2.5" -SBC			
P/N	Depending on 2.5"-SBC	0H020E504000100L	0H0101301500100L	
Description	Thermal Solution	Long Copper Pillar	M3 Screw X 15L	
Quantity	1	4	4	
Item	⑥	⑦	⑧	⑨
Legend				
P/N	0H0203400800100L	0H0203300800100L	0H0141200800100L	0H0104600300100L
Description	Long M3 (F) / M2.5 (M) Hexagon Head Standoff Screw	Short M3 (F) / M2.5 (M) Hexagon Head Standoff Screw	M2.5 Pan Head Cross Screw	M3 I Head Cross Screw
Quantity	1	1	1	1

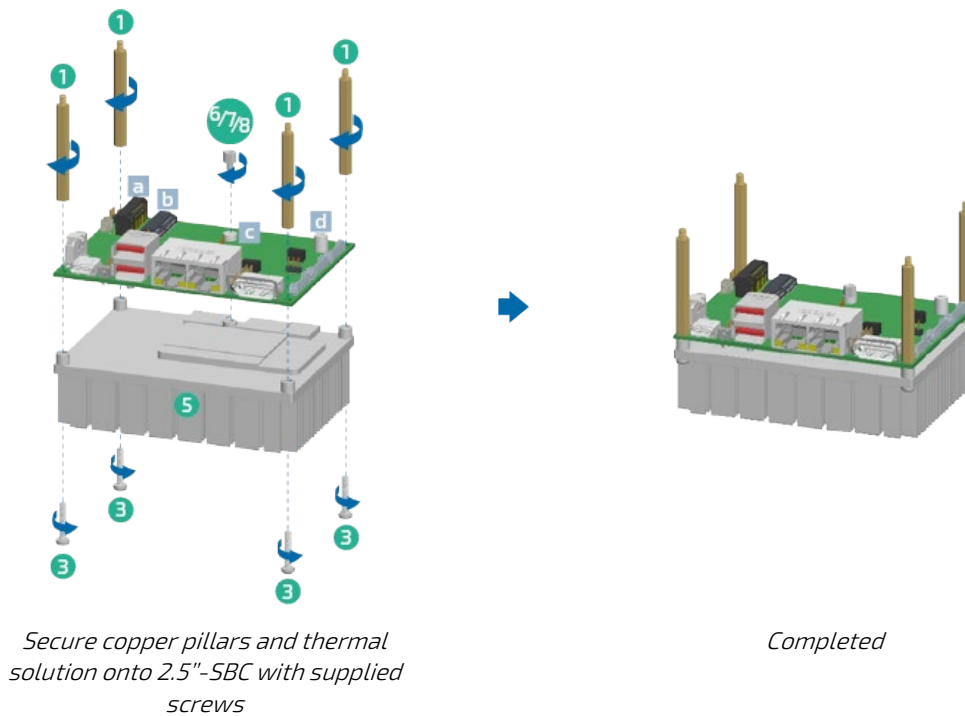
(3) M.2 Key B Module Adapter Kit

The M.2 Key B module adapter kit is intended for enabling users to install a M.2 Key B Type xx52 module on 2.5"-SBC that is without a fixing bolt for a 52 mm-long module. It consists of the items listed in the following table:

Kit	M.2 Key B Module Adapter Kit		
P/N	0ZHK5BC305200001		
Item	⑩	⑨	⑪
Legend			
P/N	0F0400000013800L	0H0104600300100L	0H0102300400500L
Description	M.2 Module Adapter Bracket	M3 I Head Cross Screw	M3 Flat Head Cross Screw
Quantity	1	2	1

➤ Installing Copper Pillars & Thermal Solution on 2.5"-SBC

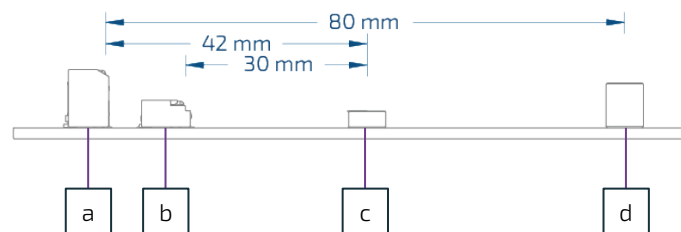
To install copper pillars and an applicable thermal solution on 2.5"-SBC, follow the steps shown in the following figure.



- a M.2 Key B Slot
- b M.2 Key E Slot
- c M.2 Fixing Bolt for Key B Type xx42 / xx52 and / or Key E xx30 + Thermal Solution Fixing Bolt
- d M.2 Fixing Bolt for Key B Type xx80 / xx52

➤ Installing M.2 Module(s) into M.2 Key B and / or Key E Slot(s)

Generally, the slots and the corresponding fixing bolts are arranged as the following figure. Please note that one of the fixing bolts (pos. c, see below) is served as a dual-use standoff to secure the thermal solution used and a M.2 module if any.



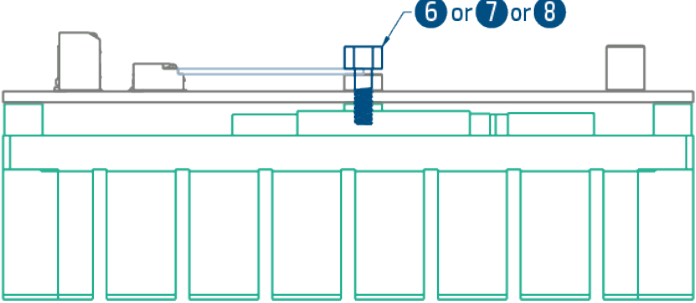
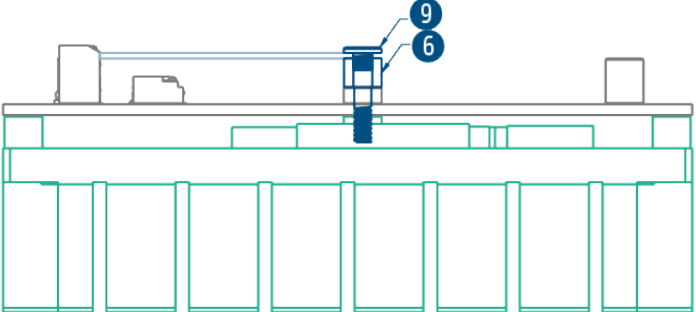
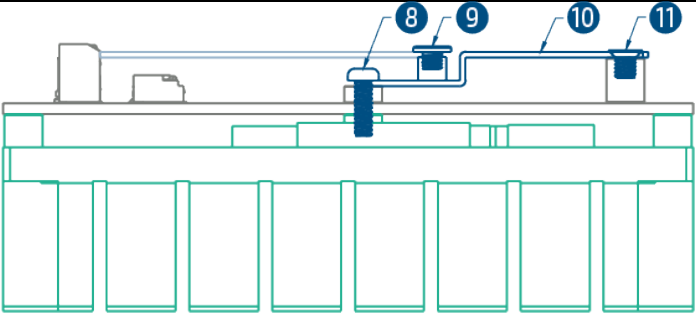
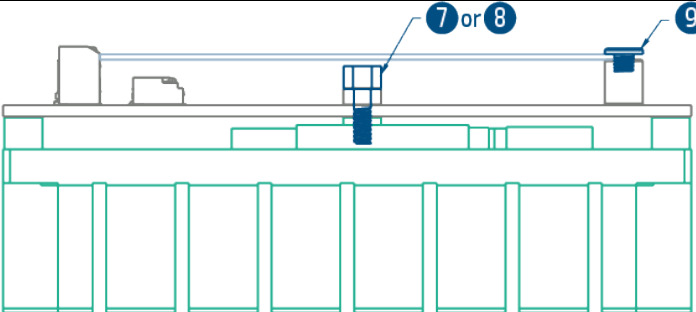
- a M.2 Key B Slot
- b M.2 Key E Slot
- c M.2 Fixing Bolt for Key B Type xx42 / xx52 and / or Key E xx30 + Thermal Solution Fixing Bolt
- d M.2 Fixing Bolt for Key B Type xx80 / xx52

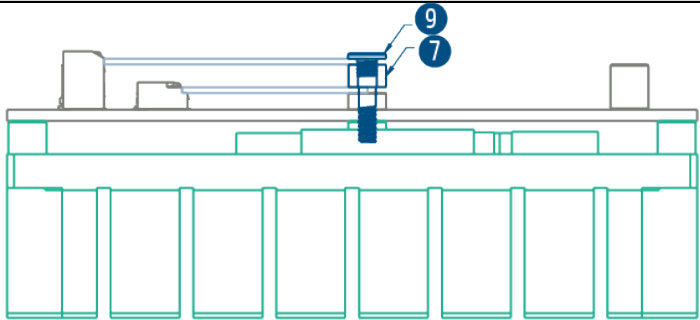
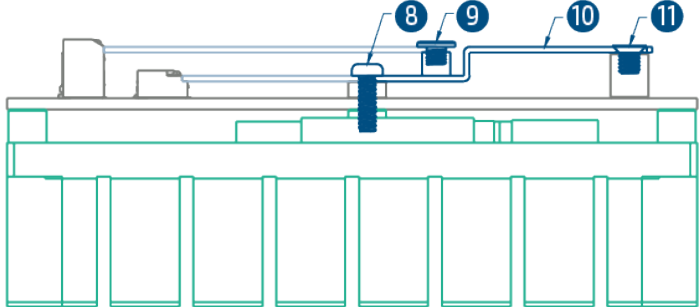
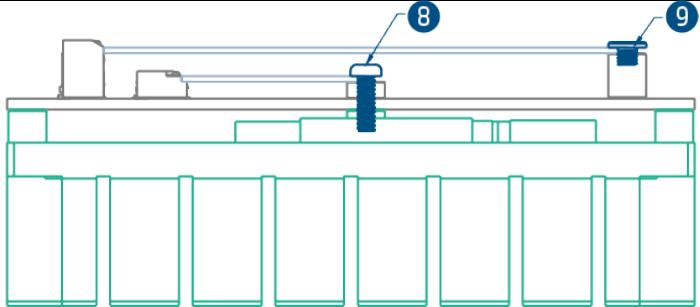
The following table illustrates every installation possibility of M.2 Key B module and / or M.2 Key E module along with thermal solution and required fixing bolt extension(s), fastening screw(s) and / or adapter bracket.


2.5"-SBC

Thermal Solution

M.2 Module

Key B Module Type	Key E Module Type	Installation Configuration
-	xx30	
xx42	-	
xx52	-	
xx80	-	

Key B Module Type	Key E Module Type	Installation Configuration
xx42	xx30	
xx52	xx30	
xx80	xx30	

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