

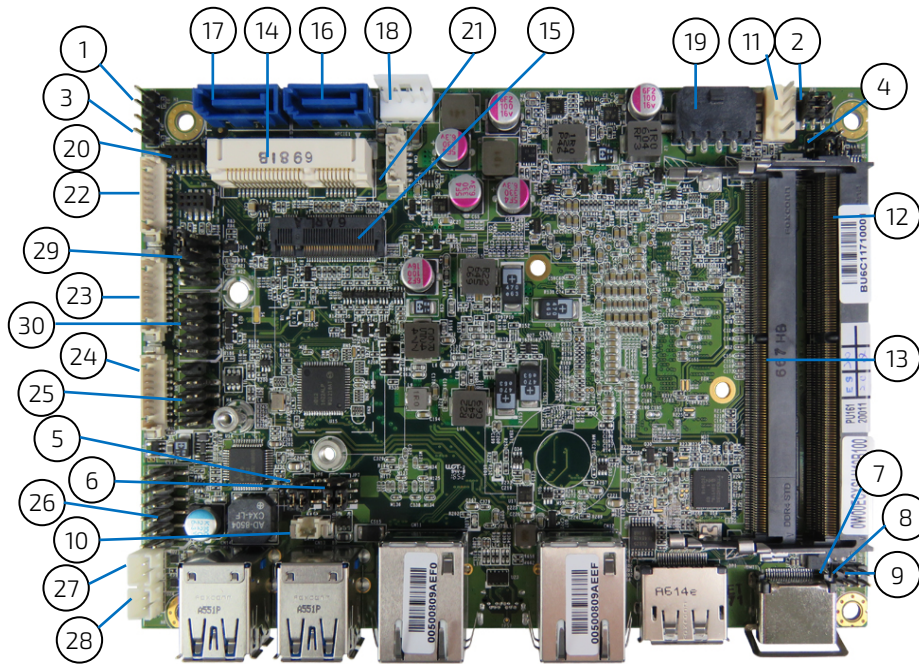
## ▶ 3.5"-SBC-KBL/SKL - QUICK INSTALLATION GUIDE

Thank you for purchasing the Kontron 3.5"-SBC-KBL/SKL embedded board. This document provides information to allow you to quickly install this product.

### Packing Checklist

1. Take the 3.5"-SBC-KBL/SKL out of the packing box and check if the unit is properly secure in the plastic bag.
2. Check the contents of the carton box: (\*: optional)
  - ▶ 3.5"-SBC-KBL/SKL embedded board
  - ▶ Quick Installation Guide
  - ▶ 1x DC Jack Cable
  - ▶ 1x SATA Cable\*
  - ▶ 1x SATA Power Cable\*
  - ▶ COM Port Cable\*
  - ▶ DIO Cable\*
  - ▶ 2-Port USB Cable\*
  - ▶ Audio Cable\*
  - ▶ Mini SIM Card Holder Kit\*
  - ▶ Heatsink\* (for 15 W TDP CPU)

## Top Side Jumper and Internal Connector Locations



### ► Jumper List

Item	Designation	Description
1	JP1	MPCIE1 Activity LED Pin Header
2	JP2	Panel & Backlight Power Selection for LVDS1
3	JP3	NGFF M.2 Activity LED Pin Header
4	JP4	Backlight Power Enable Selection for LVDS1
5	JP6	AT / ATX Power Mode and NGFF mSATA/mPCIe Selection
6	JP7	SIM Card and USB Power Selection
7	JP8	Flash Descriptor Security Override Selection
8	JP9	RTC Reset Selection
9	JP10	Clear ME Register

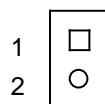
### ► Internal Connector List

Item	Designation	Description
10	BAT1	RTC Power Input Wafer
11	FAN1	+12VDC CPU FAN Wafer
12	DIMM1	Primary DDR4 Memory SO-DIMM Socket

Item	Designation	Description
13	DIMM2	Secondary DDR4 Memory SO-DIMM Socket
14	MPCIE1	Full Size Mini-PCI Express v1.2 Socket
15	CON1	NGFF M.2 Key-B Socket
16	SATA1	Serial ATA Port-0 SATA Socket
17	SATA2	Serial ATA Port-0 SATA Socket
18	CN1	HDD Power Output Wafer
19	CN2	DC12V Power Input Wafer
20	CN3	P80 Header
21	CN4	SIM Interface Wafer for MPCIE1/NGFF M.2
22	CN5	Digital Input / Output Wafer
23	CN6	Serial Port 1 Wafer
24	CN7	Serial Port 2 Wafer
25	CN8	USB 2.0 Port DN5,6 Pin Header
26	CN9	Audio Input / Output Pin Header
27	CN10	Left Channel 3W Audio AMP Output Wafer
28	CN15	Right Channel 3W Audio AMP Output Wafer
29	FP1	Front Panel 1 Pin Header
30	FP2	Front Panel 2 Pin Header

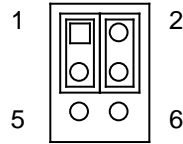
## Jumper Settings

- ▶ MPCIE1 Activity LED Pin Header (JP1)



Jumper Position	Description
1	LED+
2	LED-

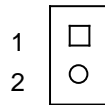
▶ Panel & Backlight Power Selection for LVDS1 (JP2)



Jumper 1 Position		Description
Pin 1-3	Pin 3-5	
X	-	Backlight Power = +12V
-	X	Backlight Power = +5V
Jumper 2 Position		Description
Pin 2-4	Pin 4-6	
X	-	Panel Power = +3,3V
-	X	Panel Power = +5V

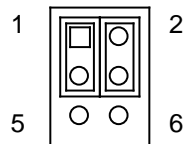
"X" = Jumper set (short) and "-" = jumper not set (open)

▶ NGFF M.2 Activity LED Pin Header (JP3)



Jumper Position	Description
1	LED+
2	LED-

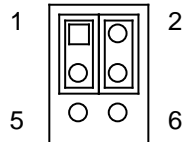
▶ Backlight Power Enable Selection for LVDS1 (JP4)



Jumper 1 Position		Description
Pin 1-3	Pin 3-5	
X	-	Backlight Enable Voltage = +3.3V
-	X	Backlight Enable Voltage = +5V
Jumper 2 Position		Description
Pin 2-4	Pin 4-6	
X	-	Active High
-	X	Active Low

"X" = Jumper set (short) and "-" = jumper not set (open)

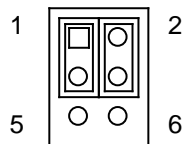
▶ AT / ATX Power Mode & NGFF mSATA / mPCIe Selection (JP6)



Jumper 1 Position		Description
Pin 1-3	Pin 3-5	
X	-	ATX Mode
-	X	AT Mode
Jumper 2 Position		Description
Pin 2-4	Pin 4-6	
X	-	NGFF Select mSATA
-	X	NGFF Select mPCIe

"X" = Jumper set (short) and "-" = jumper not set (open)

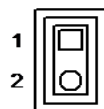
▶ SIM Card and USB Power Selection (JP7)



Jumper 1 Position		Description
Pin 1-3	Pin 3-5	
X	-	SIM Card to NGFF
-	X	SIM Card to mPCIe
Jumper 2 Position		Description
Pin 2-4	Pin 4-6	
X	-	S5 USB Power Support
-	X	S3 USB Power Support

"X" = Jumper set (short) and "-" = jumper not set (open)

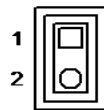
▶ Flash Descriptor Security Override Selection (JP8)



Jumper Position	Description
Pin 1-2	
X	Enable
-	Disabled

"X" = Jumper set (short) and "-" = jumper not set (open)

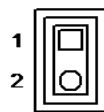
▶ RTC Reset Selection (JP9)



Jumper Position	Description
Pin 1-2	
X	Enable Clear CMOS RTC content (board does not boot with the jumper in this position)
-	Disabled (default position)

"X" = Jumper set (short) and "-" = jumper not set (open)

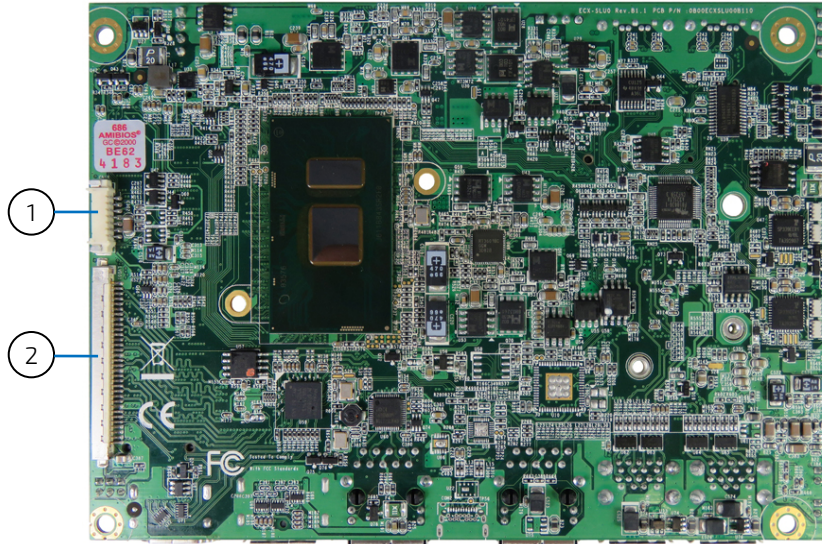
▶ Clear ME Register (JP10)



Jumper Position	Description
Pin 1-2	
X	Enable Clear ME
-	Disabled

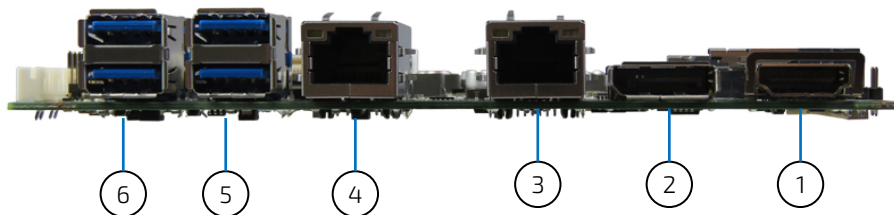
"X" = Jumper set (short) and "-" = jumper not set (open)

## Bottom Side Internal Connector Locations



Item	Designation	Description
1	CN16	LCD Panel Power Connector
2	LVDS1	LVDS Panel Connector

## Real I/O Panel Connector Locations



Item	Designation	Description
1	HDMI1	HDMI Port-1 Connector
2	DP1	DisplayPort Port-1 Connector
3	CN12	GbE LAN1 RJ-45 Connector
4	CN11	GbE LAN2 RJ-45 Connector
5	CN13	USB3.0 Port-1,2 Type-A Connector
6	CN14	USB3.0 Port-3,4 Type-A Connector