

▶ 3.5"-SBC-EKL - QUICK INSTALLATION GUIDE

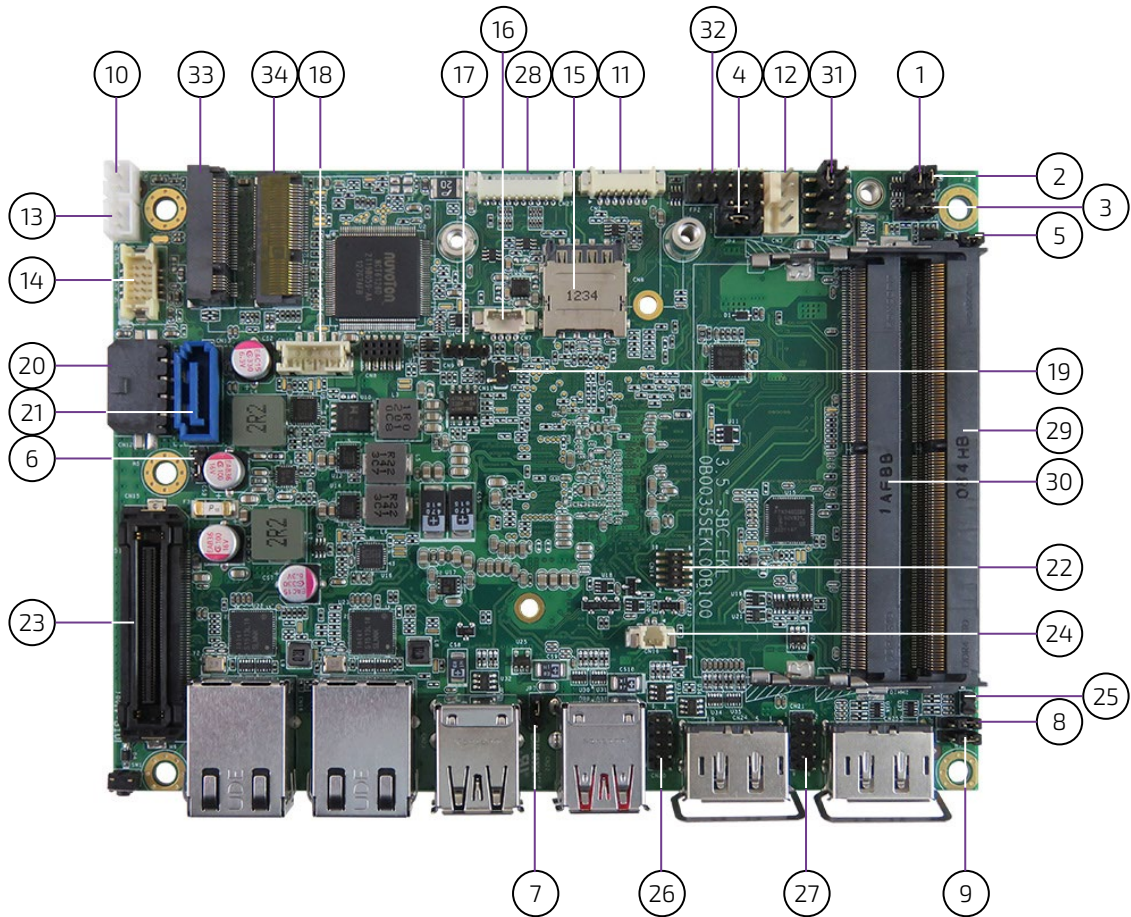
Thank you for purchasing the Kontron 3.5"-SBC-EKL embedded board. This document provides information to allow you to quickly install this product.

Packing Checklist

1. Take the 3.5"-SBC-EKL 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 / **: supplied for single-piece box packing & optional for others)

- ▶ 3.5"-SBC-EKL main board
- ▶ Quick Installation Guide
- ▶ DC IN Cable **
- ▶ SATA Cable *
- ▶ SATA Power Cable *
- ▶ COM Port Cable *
- ▶ DIO Cable *
- ▶ USB Cable (2 Port) *
- ▶ Audio Cable *
- ▶ Heatsink *
- ▶ Extended I/O Board *

Top Side Jumper and Internal Connector Locations



▶ Jumper List

Item	Designation	Description
1	JP1	LVDS Backlight Enable Voltage Selection
2	JP2	AT / ATX Power Mode Selection
3	JP3	LVDS Backlight Enable Selection
4	JP4	LVDS Panel Power Selection
5	JP5	LVDS Backlight Control Selection
6	JP6	Flash Descriptor Security Override Selection
7	JP7	Clear CMOS Selection
8	JP8	USB Power Selection
9	JP9	MFG Mode Selection

▶ Internal Connector List

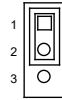
Item	Designation	Description
10	CN1	Left Channel Audio AMP Output Wafer
11	CN2	GSPI Wafer
12	CN3	FAN Wafer
13	CN4	Right Channel Audio AMP Output Wafer
14	CN5	Audio Input / Output Header
15	CN6	Micro SIM Card Holder for M2B1
16	CN7	I ² C Wafer
17	CN9	Activity Indicator Header for M2E1
18	CN10	SATA Power Output Wafer
19	CN11	Activity Indicator Header for M2B1
20	CN12	+12 V DC Power Input Wafer
21	CN13	SATA Connector
22	CN14	SPI 10-Pins Header
23	CN15	B2B Connector
24	CN16	RTC Power Input Wafer
25	CN17	Activity Indicator Header for M2M1
26	CN20	USB 2.0 Port 4 & 5 Header
27	CN21	USB 2.0 Port 6 & 7 Header
28	CN27	DIO Header
29	DIMM1	DDR4 Channel 0 SO-DIMM Slot
30	DIMM2	DDR4 Channel 1 SO-DIMM Slot
31	FP1	Front Panel Header 1
32	FP2	Front Panel Header 2
33	M2B1	M.2 Key B 2242 / 2280 Slot (No SATA)
34	M2E1	M.2 Key E 2230 Slot



For M.2 Key B and M.2 Key E installation configuration, refer to the user guide.

Jumper Setting

▶ LVDS Backlight Enable Voltage Selection JP1



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	+3.3 V
-	X	+5 V

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

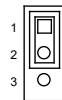
▶ AT / ATX Power Mode Selection (JP2)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	ATX Power Mode
-	X	AT Power Mode

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

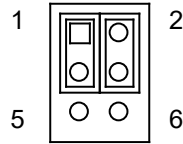
▶ LVDS Backlight Enable Selection (JP3)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	High Active
-	X	Low Active

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

▶ LVDS Panel Power Selection (JP4)



Jumper 1 Position		Description
Pin 1-3	Pin 3-5	
X	-	Backlight Power = +12 V
-	X	Backlight Power = +5 V
Jumper 2 Position		Description
Pin 2-4	Pin 4-6	
X	-	Panel Power = +3.3 V
-	X	Panel Power = +5 V

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

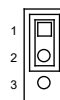
▶ LVDS Backlight Control Selection (JP5)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	PWM Control Mode
-	X	Voltage Control Mode

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

▶ Flash Descriptor Security Override Selection (JP6)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	Normal Operation
-	X	Flash Security Override

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

▶ Clear CMOS Selection (JP7)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	Normal Operation (default position)
-	X	Clear CMOS (board does not boot with the jumper in this position)

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

▶ USB Power Selection (JP8)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	+5 V
-	X	+5 VSB

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

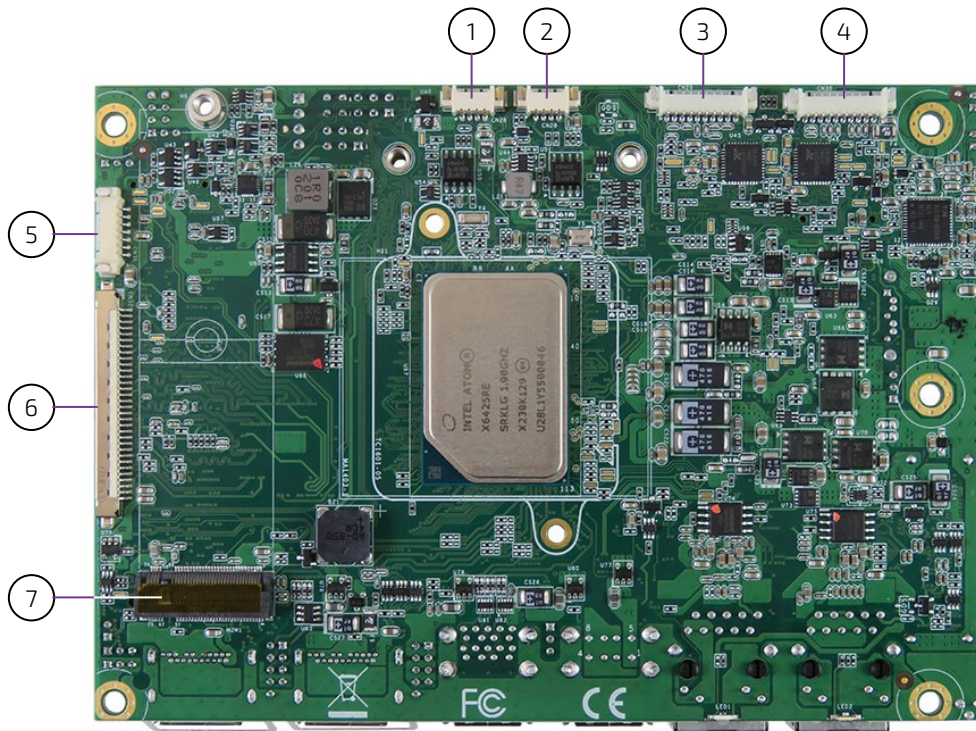
▶ MFG Mode Selection (JP9)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	Normal Operation
-	X	Enable MFG Mode

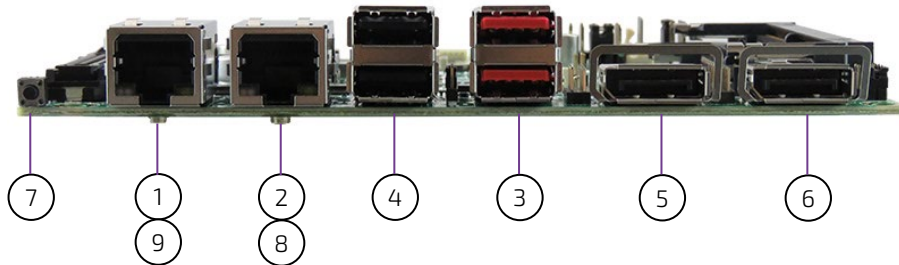
"X" = Jumper set (short) and "-" = jumper not set (open)

Bottom Side Internal Connector Locations



Item	Designation	Description
1	CN26	CAN BUS 0
2	CN28	CAN BUS 1
3	CN29	RS232/422/485 COM2 Wafer
4	CN30	RS232/422/485 COM1 Wafer
5	CN31	LVDS Backlight Power Wafer
6	CN32	24-bit / 2-ch LVDS Connector
7	M2M1	M.2 Key M 2280 Slot (SATA only)

Rear I/O Panel Connector Locations



Item	Designation	Description
1	CN18	2.5 GbE LAN1 RJ45 Connector
2	CN19	2.5 GbE LAN2 RJ45 Connector
3	CN22	USB 3.2 Gen 2 Port 0, 1 Type A Connector
4	CN23	USB 2.0 Port 2, 3 Type A Connector
5	CN24	DP Port 1 Connector
6	CN25	DP Port 2 Connector
7	SW1	Power Button
8	LED1	Standby LED
9	LED2	Power LED



You can download the user guide from our web site www.kontron.com and relevant drivers for the installed hardware in Customer Section (<https://customersection.kontron.com>) by selecting the product.