

▶ mITX-VR1000 V2.0 – QUICK INSTALLATION GUIDE

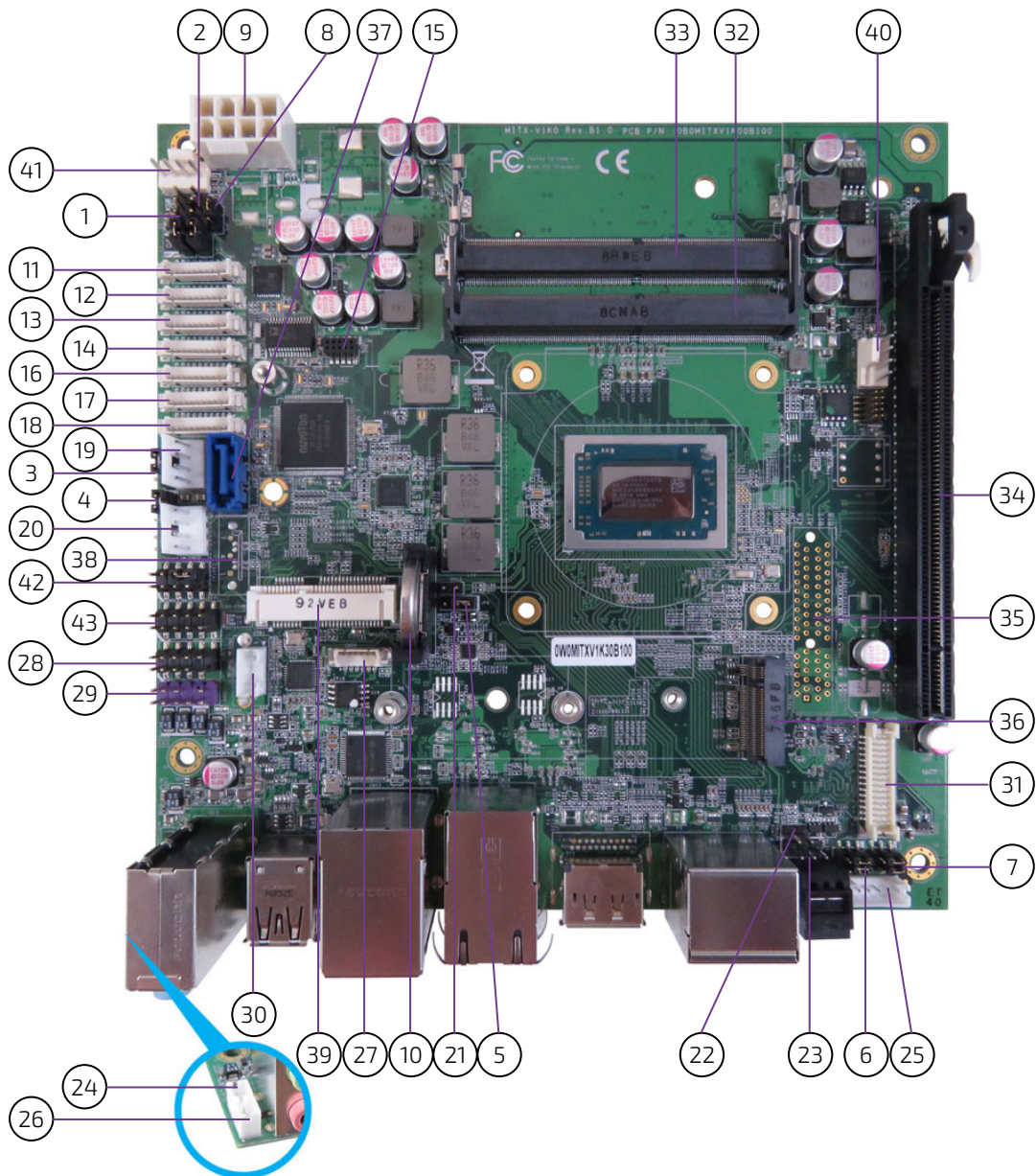
Thank you for purchasing the Kontron mITX-VR1000 V2.0 embedded board. This document provides information to allow you to quickly install this product.

Packing Checklist

1. Take the mITX-VR1000 V2.0 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)

- ▶ mITX-VR1000 V2.0 main board
- ▶ Quick Installation Guide
- ▶ I/O Shield (I/O shield type depending on board SKU)
- ▶ USB 2.0 Cable (2 Port) *
- ▶ COM Port Cable *
- ▶ DIO Cable *
- ▶ SATA Power Cable *
- ▶ SATA Cable *
- ▶ Audio Cable *
- ▶ DC Jack Cable *
- ▶ 25 W Cooler *
- ▶ 54 W Cooler *

Top Side Jumper and Internal Connector Locations



▶ Jumper List

Item	Designation	Description
1	JP1	Pin-9 Selection for COM1
2	JP2	Pin-9 Selection for COM2
3	JP3	AT / ATX Power Mode Selection
4	JP4	USB Power Selection

Item	Designation	Description
5	JP6	Clear CMOS Selection
6	JP7	Backlight Power Enable Selection for LVDS1
7	JP8	Panel & Backlight Power Selection for LVDS1
8	JP9	LVDE_EDID Selection

► Internal Connector List

Item	Designation	Description
9	ATX1	DC 12 V (BOM option for 24 V support) Power Input Wafer
10	BAT2	CR2032 Battery Holder
11	CN2	Digital Input / Output Wafer
12	CN3	RS232/422/485 Port 1 Wafer
13	CN4	RS232/422/485 Port 2 Wafer
14	CN5	RS232 Port 3 Wafer
15	CN6	P80 Header
16	CN7	RS232 Port 4 Wafer
17	CN8	RS232 Port 5 Wafer
18	CN10	RS232 Port 6 Wafer
19	CN11	HDD Power Output Wafer 1
20	CN12	HDD Power Output Wafer 2
21	CN13	mPCIe Activity LED Pin Header
22	CN14	M.2 Key B LED Pin Header
23	CN15	S/PDIF Output Pin Header
24	CN19	Right Channel 3W Audio AMP Output Wafer
25	CN23	Panel Backlight Wafer for LVDS1
26	CN25	Left Channel 3W Audio AMP Output Wafer
27	CN26	SIM Interface Wafer for MPCIE1
28	CN27	USB 2.0 Port DN_1, DN_2 Pin Header
29	CN28	Front Panel Audio Pin Header
30	CN29	USB 2.0 Port 5 Wafer
	USB1	USB 2.0 Port 3 Type A 90 degrees Connector
31	LVDS1	Primary 24-bit, 2-channel LVDS Panel Connector (BOM option)
32	DIMM1	DDR4 Memory SO-DIMM Socket
33	DIMM2	DDR4 Memory SO-DIMM Socket
34	PCIE2	PCIe x16 Slot (signal for PCIe x8 only)
35	PCIE1	PCIe x4 Slot (signal for PCIe x2 only) (BOM option)
36	M2B1	M.2 Key B Socket (BOM option)
37	SATA1	Serial ATA Port-0 Connector (for M2M1) (BOM option)
38	SATA2	Serial ATA Port-1 Connector (for M2M2) (BOM option)
39	MPCIE1	Mini-PCI Express v1.2 Socket

Item	Designation	Description
40	FAN1	CPU FAN Wafer
41	FAN2	System FAN Wafer
42	FP1	Front Panel 1 Pin Header
43	FP2	Front Panel 2 Pin Header

Jumper Setting

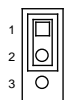
▶ 7.20.1. Pin-9 Selection for COM1 & COM2 (JP1 & JP2)



Jumper Position				Description
Pin 1-2	Pin 2-3	Pin 3-4	Pin 4-5	
X	-	-	-	Pin-9 = +12 V
-	X	-	-	Pin-9 = +5 V
-	-	X	-	Pin-9 = +5 V
-	-	-	X	Pin-9 = RI

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

▶ AT / ATX Power Mode Selection (JP3)



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

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

► USB Power Selection (JP4)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	USB power will be cut off in S4 & S5 state
-	X	USB power is always supplied

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

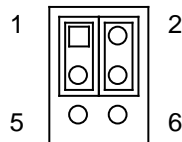
► Clear CMOS Selection (JP6)



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

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

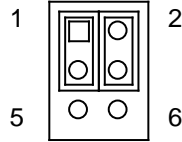
► Backlight Power Enable Selection for LVDS1 (JP7)



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

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

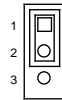
▶ Panel & Backlight Power Selection for LVDS1 (JP8)



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)

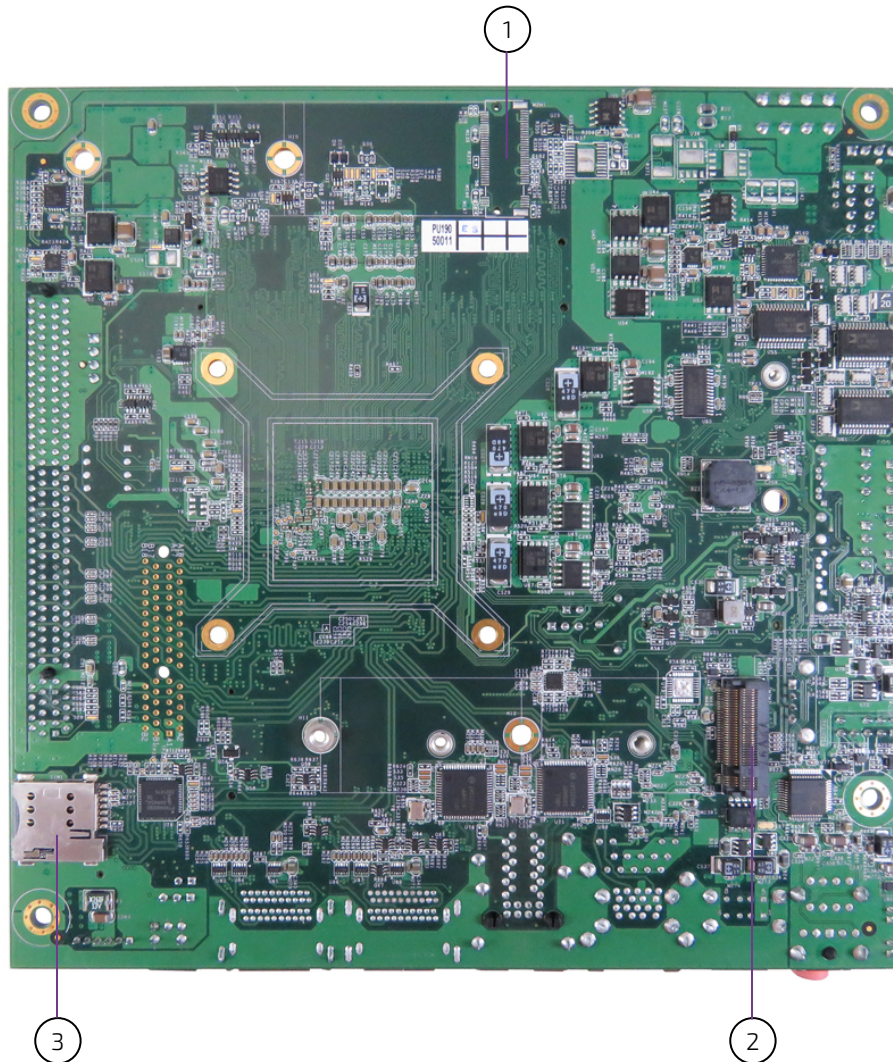
▶ LVDE EDID Selection (JP9)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	Normal
-	X	LVDE_EDID Write

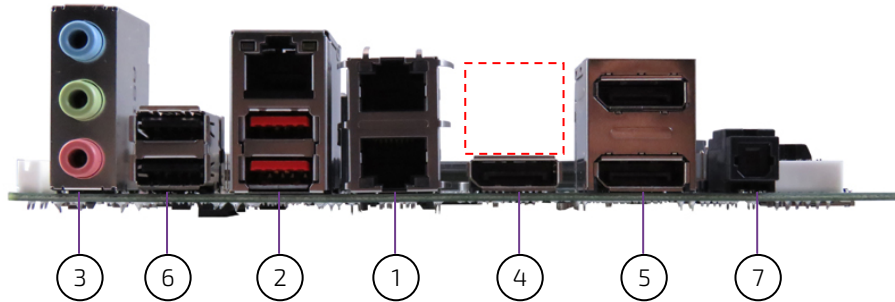
"X" = Jumper set (short) and "-" = jumper not set (open)

Bottom Side Internal Connector Locations



Item	Designation	Description
1	M2M1	M.2 Key M Socket (for SATA1) (BOM option)
2	M2M2	M.2 Key M Socket (for SATA2) (BOM option)
3	SIM1	SIM Card Connector, Push-Push Type

Rear I/O Panel Connector Locations



Item	Designation	Description
1	CN16	GbE LAN2 & GbE LAN3 Connector
2	CN17	GbE LAN1 & USB 3.1 Port-0, 1 Connector
3	CN18	3 Stack-up Azalia Audio Phone Jack
4	CN20B	Single DisplayPort Connector (Configuration 1)
	CN20A & CN20B	Dual DisplayPort Connector (Configuration 2)
5	CN21C & CN21D	Dual DisplayPort Connector
6	CN22	USB 2.0 Port 4, 5
7	CN24	Optical S/PDIF Output Connector