

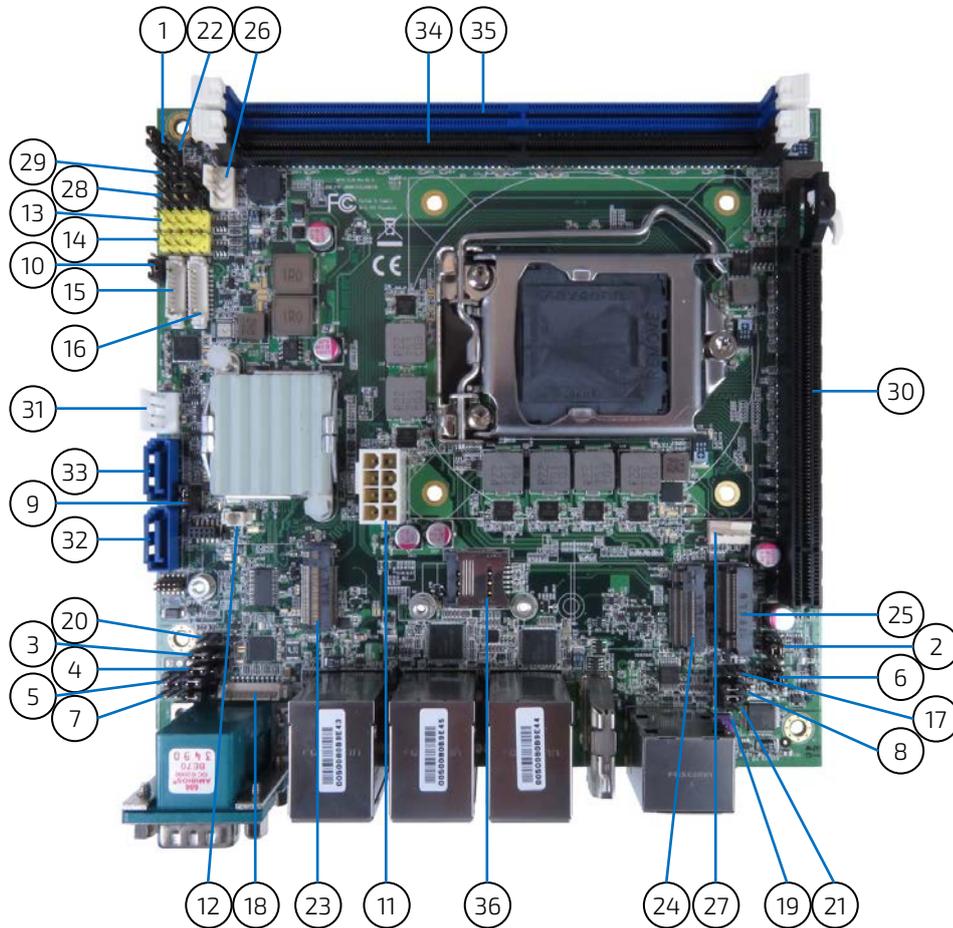
▶ mITX-CFL-S - QUICK INSTALLATION GUIDE

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

Packing Checklist

1. Take the mITX-CFL-S 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-CFL-S main board
 - ▶ I/O Shield
 - ▶ Quick Installation Guide
 - ▶ USB 2.0 Cable*
 - ▶ COM Port Cable*
 - ▶ DIO Cable*
 - ▶ SATA Cable*
 - ▶ SATA Power Cable*
 - ▶ Audio Cable*
 - ▶ DC Jack Cable*

Top Side Jumper and Internal Connector Locations



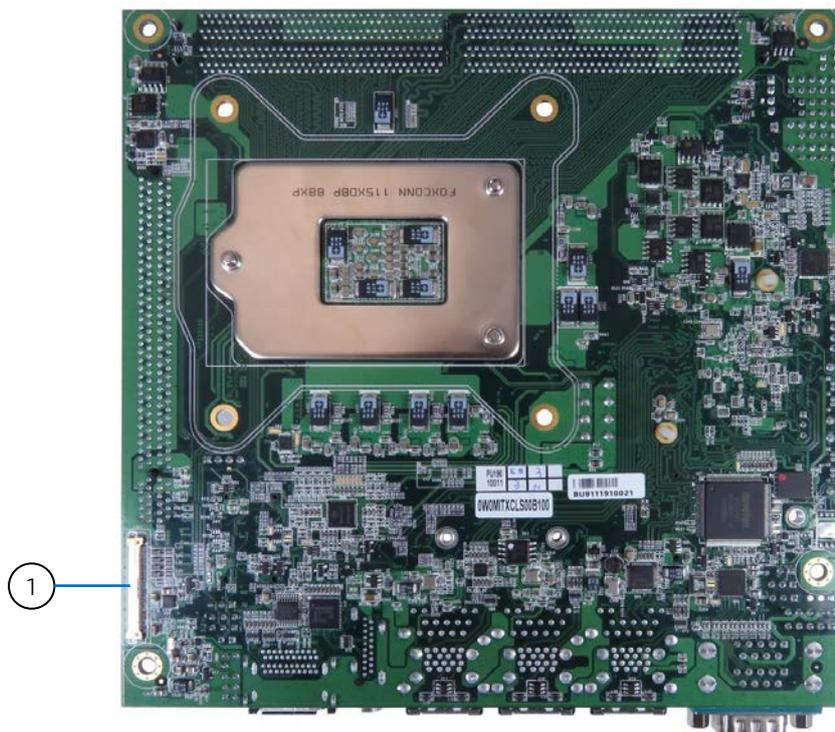
► Jumper List

Item	Designation	Description
1	JP2	ME F/W Selection
2	JP4	Backlight Power Enable Selection for eDP1
3	JP5	AT / ATX Power Mode Selection
4	JP7	RTC Reset Selection
5	JP8	Pin-9 Selection for COM2
6	JP9	Panel & Backlight Power Selection for eDP1
7	JP10	Pin-9 Selection for COM1
8	JP11	PCIE Configuration Setting for PEG1
9	JP13	USB Power Selection
10	JP14	M.2 Key B Function Selection

► Internal Connector List

Item	Designation	Description
11	ATX1	2x4-pin ATX Power Supply Wafer
12	BAT1	CR2032 Battery Power Input Wafer
13	CN1	USB2.0 Port 13, 14 Pin Header
14	CN2	USB2.0 Port 7, 8 Pin Header
15	CN3	RS-232/422/485 Port 4 Wafer
16	CN4	RS-232/422/485 Port 3 Wafer
17	CN6	SPDIF-Out Pin Header
18	CN7	8-bit Digital Input / Output Pin Header
19	CN11	Front Panel Audio Pin Header
20	CN14	M.2 Key A Activity LED Indication Pin Header
21	CN15	M.2 Key B Activity LED Indication Pin Header
22	CN16	M.2 Key M Activity LED Indication Pin Header
23	M2A1	M.2 Key A Slot
24	M2B1	M.2 Key B Slot
25	M2M1	M.2 Key M Slot (only support PCIe)
26	FAN1	System FAN Wafer
27	FAN2	CPU FAN Wafer
28	FP1	Front Panel Pin Header 1
29	FP2	Front Panel Pin Header 2
30	PEG1	PCIEx16 Slot
31	CN17	HDD Power Wafer
32	SATA1	Serial ATA Port-0 Connector
33	SATA2	Serial ATA Port-1 Connector
34	DIMM1	DDR4 Memory U-DIMM Socket
35	DIMM2	DDR4 Memory U-DIMM Socket
36	SIM1	Micro SIM Interface Slot for M.2 Key B

Bottom Side Internal Connector Locations



► Internal Connector List

Item	Designation	Description
1	EDP1	eDP Connector

Jumper Settings

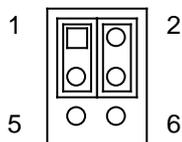
► ME F/W Selection (JP2)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	Security Measures Defined are Set (Default)
-	X	Security Measures Defined by BIOS are Over-written

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

▶ Backlight Power Enable Selection for eDP1 (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 Selection (JP5)



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)

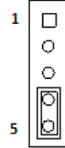
▶ RTC Reset Selection (JP7)



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

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

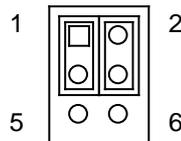
► Pin-9 Selection for COM2 (JP8)



Jumper Position				Description
Pin 1-2	Pin 2-3	Pin 3-4	Pin 4-5	
X	-	-	-	COM2, Pin-9 = +12V
-	X	-	-	COM2, Pin-9 = +5V
-	-	X	-	COM2, Pin-9 = +5V
-	-	-	X	COM2, Pin-9 = RI

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

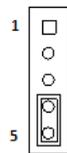
► Panel & Backlight Power Selection for eDP1 (JP9)



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)

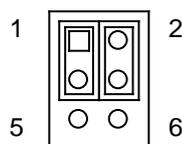
▶ Pin-9 Selection for COM1 (JP10)



Jumper Position				Description
Pin 1-2	Pin 2-3	Pin 3-4	Pin 4-5	
X	-	-	-	COM1, Pin-9 = +12V
-	X	-	-	COM1, Pin-9 = +5V
-	-	X	-	COM1, Pin-9 = +5V
-	-	-	X	COM1, Pin-9 = RI

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

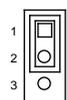
▶ PCIE Configuration Setting for PEG1 (JP11)



Jumper 1 Position		Jumper 2 Position		Description
Pin 1-3	Pin 3-5	Pin 2-4	Pin 4-6	
X	-	X	-	x16
X	-	-	X	N/A
-	X	X	-	x8 x8
-	X	-	X	X8 x4 x4

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

▶ USB Power Selection (JP13)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	USB Power is always support
-	X	USB Power is only S3 support

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

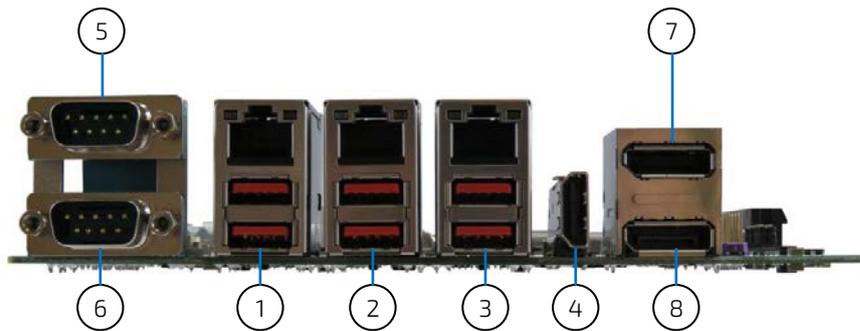
► M.2 Key B Function Selection (JP14)



Jumper 1 Position		Description
Pin 1-2	Pin 2-3	
X	-	SATA
-	X	PCIE

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

Real I/O Panel Connector Locations



Item	Designation	Description
1	CN8	GbE LAN1 & USB3.1 Port-1, 2 Connector
2	CN9	GbE LAN2 & USB3.1 Port-3, 4 Connector
3	CN10	GbE LAN3 & USB3.1 Port-5, 6 Connector
4	HDMI1	HDMI 1.4 Connector
5	CN13TOP	RS-232/422/485 COM2 Connector
6	CN13BOT	RS-232/422/485 COM1 Connector
7	CN12TOP	Display Port A Connector
8	CN12BOT	Display Port B Connector