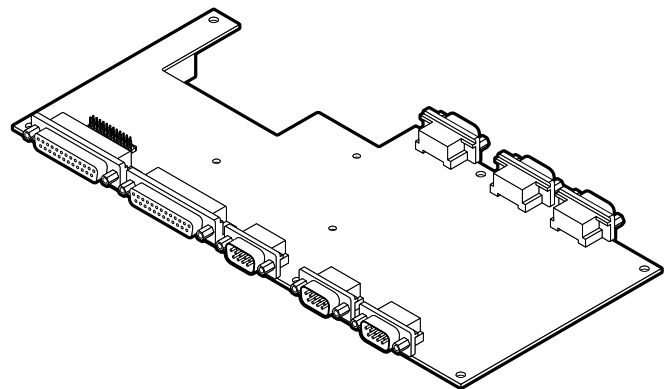


EMIO-3210

Quick Guide



Key Features:

- 6 configurable serial ports
- 2 parallel ports
- Em-IO interface
- Compatible with EITX-3000

P/N: 99G51-012964-10

The EMIO-3210 Em-IO card combines six serial ports, two parallel ports and other embedded features to enable communication with field level, for measurement and operator control of diversified automation control. Its six onboard serial ports support RS-232, RS-422, and RS-485 modes, and can be configured through BIOS setup without setting any jumpers.

When the EMIO-3210 Em-IO module is stacked on the EITX-3000 Em-ITX board, a total of 10 serial ports are supported — making the combination ideally suited for fanless embedded PC applications where space and environment are critical. The EMIO-3210 supports applications for environment and facilities monitoring, kiosks, tolling and ticketing, and entrance controls with multiple device connectivity.

Specifications:

- **Chipset:**
Fintek F81865 LPC super I/O controller
- **Serial Port:**
6 configurable D-Sub 9-pin RS-232/422/485 serial ports (COM5 ~ COM10)
- **Parallel Port:**
2 D-Sub 25-pin parallel ports (LPT1 and LPT2)
 - LPT1 uses the Fintek F81865 LPC I/O controller on the EITX-3000 through the 2x13-pin box headers on the EMIO-3210.
 - LPT2 uses the Fintek F81865 LPC I/O controller on the EMIO-3210.
- **Dimensions:** 268 mm (W) x 120 mm (L)
- **Operating Temperature:** 0°C ~ 60°C
- **Humidity:**
0% ~ 90% relative humidity, non-condensing

Packing List:

- 1 x EMIO-3210 module
- 1 x Aluminum heatsink (P/N: 99G42-01242W)
- 1 x M3*5.5 hex spacer kit (P/N: 99G44-030181)
 - 7 x M3*5.5*19mm (4 pre-mounted, 3 in bag)
 - 2 x M3*5.5*20.6mm (in bag)
- 1 x hex spacer accessory kit (P/N: 99G44-030221)
 - 16 x 4#-40*4.76*4.8mm
- 1 x NYLOK screw accessory kit (P/N: 99G44-030211)
 - 9 x M3*6mm (4 pre-mounted, 5 in bag)
- 1 x Mini jumper kit (P/N: 99G39-020021)
 - 6 x mini jumpers
- 1 x internal LPT cable (P/N: 99G33-120113)
- 1 x assembly guide



Note:

Please ensure that all items in the packing list are present before using this product. If any of the items are missing or damaged, contact your distributor or sales representative immediately.

1

Remove the four screws indicated by the red arrows and carefully lift the EMIO-3210 module off the heatsink.

2

Remove the four spacers indicated by the red ovals. Turn the spacers in the counter-clockwise direction to loosen.

3

Align the EITX-3000 over the mounting holes and secure it to the heatsink using the 7 medium length spacers. (M3*5.5*19mm)

4

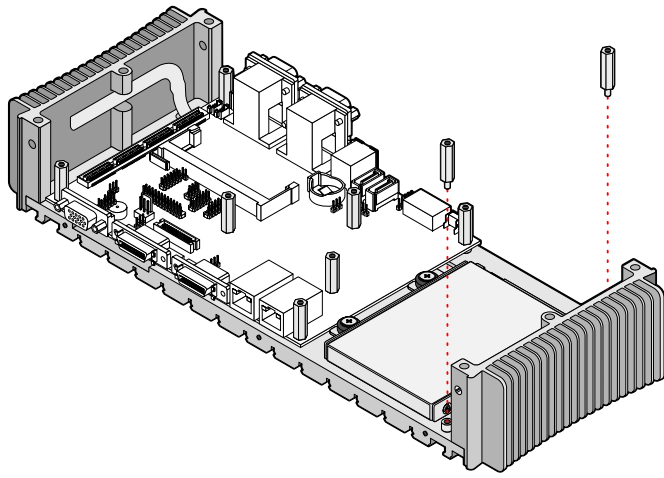
Mount the two hard disk brackets to your 2.5 inch hardisk.

5

After the hard disk brackets have been attached to the hardisk, mount the brackets to the heatsink. Secure the brackets in place with the four bracket screws.

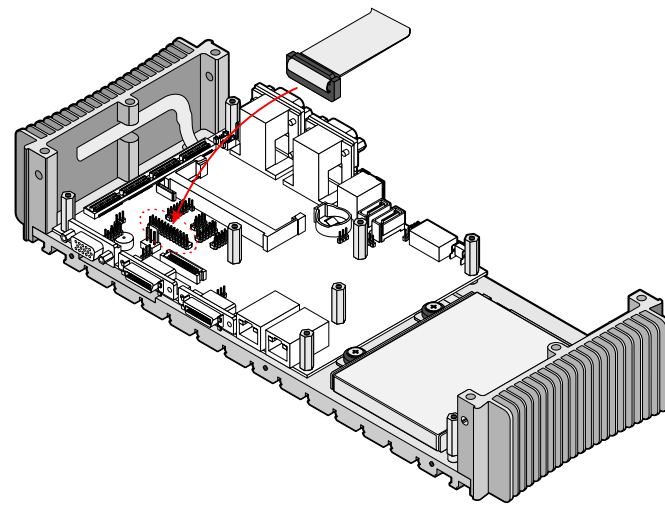
6

Next, install the long spacers.
(M3*5.5*20.6mm)



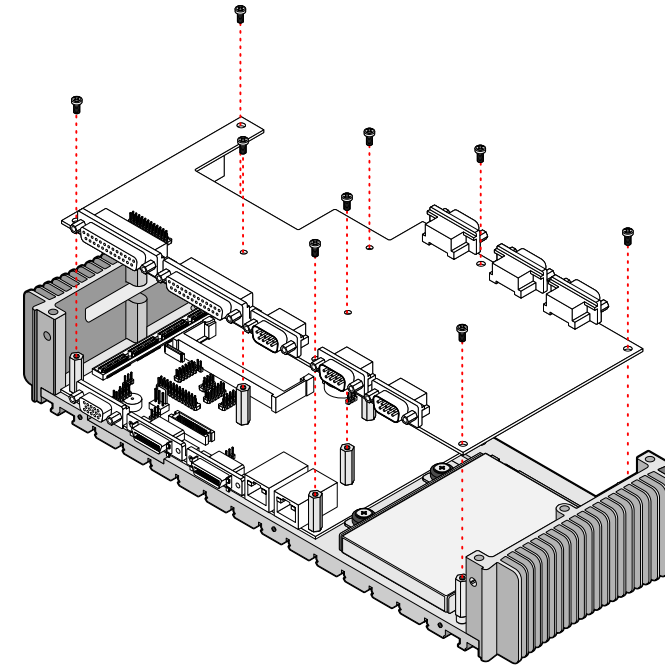
7

Attach one end of the LPT cable to the LPT pinhead connector on the EITX-3000.



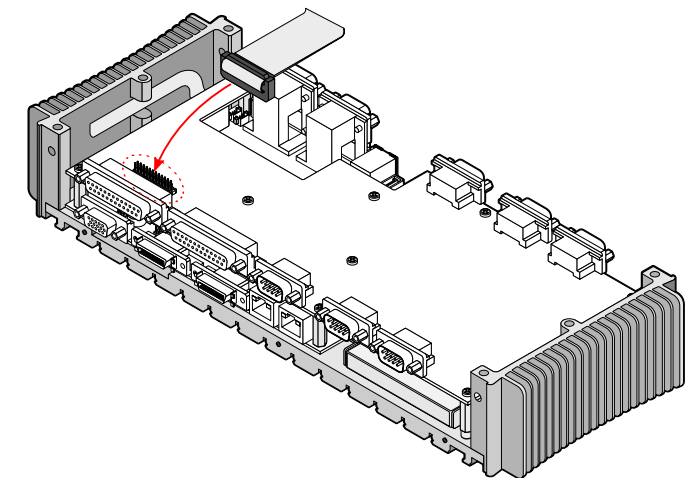
8

Align the EMIO-3210 module with the spacers, and secure the module to the spacers with the 9 mounting screws.
(M3*6mm)



9

Attach the other end of the LPT cable to the LPT_1 pinhead connector on the EMIO-3210.



Connectors and Jumpers

Label	Function
COM 5	COM 5 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
COM 6	COM 6 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
COM 7	COM 7 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
COM 8	COM 8 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
COM 9	COM 9 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
COM 10	COM 10 D-Sub 9-pin male connector (RS-232/422/485 serial COM port)
LPT1	LPT1 D-Sub 25-pin female connector (parallel port)
LPT2	LPT2 D-Sub 25-pin female connector (parallel port)
LPT_1	Onboard 2x13-pin headers for connection via cable from Em-ITX motherboard to support LPT1 parallel port.
J2	COM 8 Ring / Voltage Selection
J3	COM 9 Ring / Voltage Selection
J4	COM10 Ring / Voltage Selection
J5	COM 5 Ring / Voltage Selection
J6	COM 6 Ring / Voltage Selection
J7	COM 7 Ring / Voltage Selection

Jumper Settings

Serial port	Jumper No.	Setting Jumper	Function
COM 5	J5	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)
COM 6	J6	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)
COM 7	J7	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)
COM 8	J8	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)
COM 9	J9	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)
COM 10	J10	1-2 closed	5V
		2-3 closed	12V
		open	Ring (default)

LPT Pinout (LPT1 and LPT2)

Pin	Signal Name	Pin	Signal Name
1	STROBE	2	AUTOFD
3	D0	4	ERR
5	D1	6	INIT
7	D2	8	SLCTINI
9	D3	10	GND
11	D4	12	GND
13	D5	14	GND
15	D6	16	GND
17	D7	18	GND
19	ACK	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SLCT	26	KEY

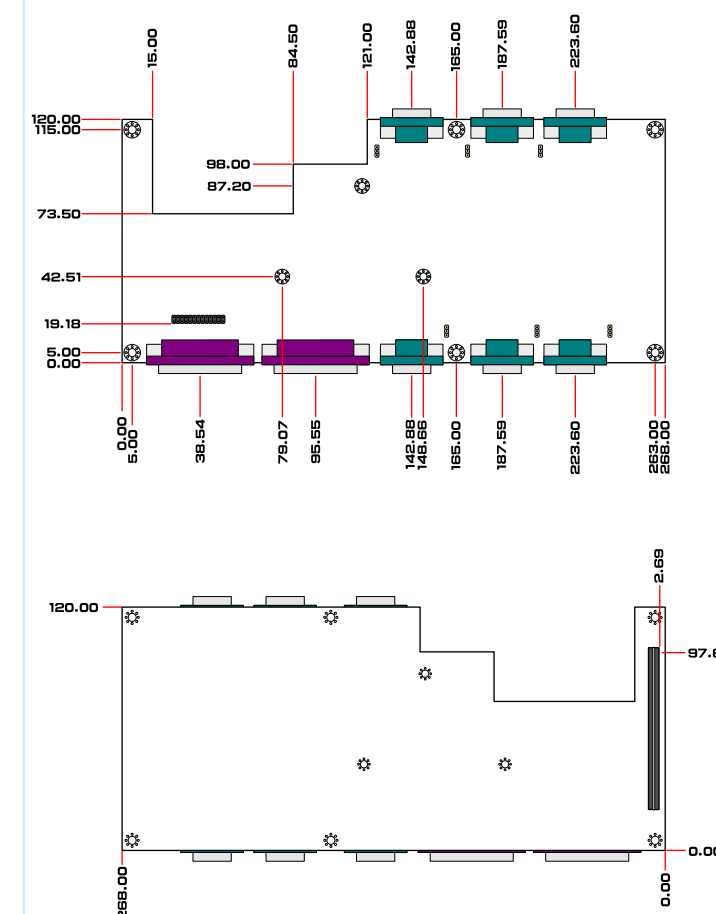
COM Pinout (COM5 ~ COM10)

Mode	RS-232 (default)	RS-422	RS-485
Pin	Signal Name	Signal Name	Signal Name
1	DCD	Tx-	DATA-
2	RXD	Tx+	DATA+
3	TXD	Rx+	NC
4	DTR	Rx-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

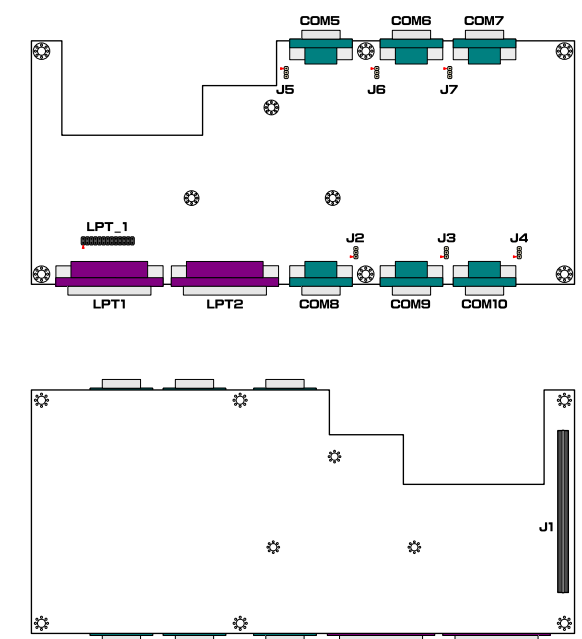


Note:
The default setting of COM 5 ~ COM 10 is RS-232. COM 5 ~ COM 10 can be configured to operate in RS-232, RS-422, or RS-485 mode by adjusting the BIOS setup items of "COM RS-232/422/485 Type" in "Super I/O COM Ports (UARTS)" of "Super I/O Device" of "Integrated Peripherals" section in the BIOS Setup of the EITX-3000 board.

Dimensions



Component Layout



For more information on this and other VIA products, please visit www.viaembedded.com.

For further support and service, please visit www.via.com/tw/en/products/mainboards/contact.jsp

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