

MI0e-210 MI/O Extension Module, 4 x RS232/422/485, 2 x RS422/485, 8-bit GPIO

Startup Manual

Packing List

Before you begin installing your board, please make sure that the following items have been shipped:

- 1 x MI0e-210 module
- 2 x COM RS-422/485 Cable (P/N 1703040157)
- Startup Manual

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note1: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Products/acrobat/readstep2.html (Acrobat is a trademark of Adobe)

Specifications

General

- **Bus Interface:** MI/O Extension
- **Chipset:** SMSC SCH3114
- **Ports:** 4 x RS232/422/485, 2 x RS422/485
- **GPIO:** 8-bit with +3.3V level

Communications

- **Data Bits:** 5, 6, 7, 8
- **Data Signals:**
 - RS-422: TxD+, TxD-, RxD+, RxD-
 - RS-485: DATA+, DATA-
 - RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
- **IRQ:** Share single IRQ, Depends on MI/O CPU Board
- **Parity:** even, odd, sticky or no
- **Speed:** 50 to 460k, 921k1 and 1.5M1 Baud
- **Stop Bits:** 1, 1.5, 2

Mechanical and Environmental

- **Dimensions (L x W):** 146 x 102 mm (5.7 x 4 inches)
- **Power Supply Voltage:** By MI/O Extension only
- **EFT Protection:** Air gap ± 15 kV, Contact ± 8 kV
- **Power Requirement:** $+12\text{ V} \pm 10\%$
- **Operating Temperature:** 0~60°C (32~140°F)
- **Operating Humidity:** 0 ~ 90 % relative humidity, non-condensing
- **Storage Temperature:** -40° C ~ 85° C and 60° C @ 95% RH Non-Condensing
- **Weight:** 0.186 kg (0.41 lb)

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<http://www.advantech.com>

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For technical support and service, please visit our support website at:

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This manual is for the MI0e-210.

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Specifications

Jumpers and Connectors

The board has a number of connectors and jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

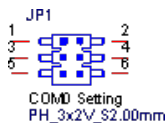
Jumpers	
Label	Function
JP1, JP2, JP3	COM0 RS-232/422/485 setting
JP4, JP5, JP6	COM1 RS-232/422/485 setting
JP7, JP8, JP9	COM2 RS-232/422/485 setting
JP10, JP11, JP12	COM3 RS-232/422/485 setting
JP13	COM4/5 RS-422/485 setting

Connectors	
Lable	Function
CN1	MIOe
CN2	GPIO
CN4	COM4
CN6	COM5
CN9	COM0
CN10	COM1
CN11	COM2
CN12	COM3

COM0 setting

JP1: COM0	
Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

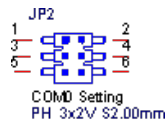
*: default



Jumpers and Connectors

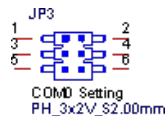
JP2: COM0	
Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

*: default



JP3: COM0	
Setting	Function
1-2	RS-485
3-4	RS-422
5-6*	RS-232

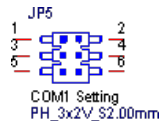
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COM1 setting

JP5: COM1	
Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

*: default

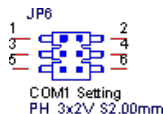


Jumpers and Connectors

JP6: COM1

Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

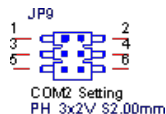
*: default



JP9: COM2

Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

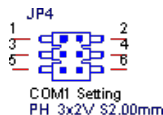
*: default



JP4: COM1

Setting	Function
1-2	RS-485
3-4	RS-422
5-6*	RS-232

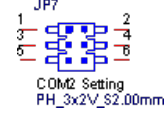
*: default



JP7: COM2

Setting	Function
1-2	RS-485
3-4	RS-422
5-6*	RS-232

*: default

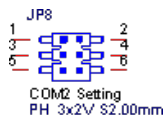


COM2 setting

JP8: COM2

Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

*: default

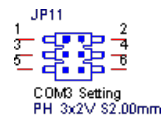


COM3 setting

JP11: COM3

Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

*: default

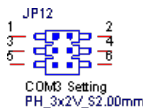


Jumpers and Connectors

JP12: COM3

Setting	Function
1-3*	RS-232
2-4*	
3-5	RS-422/485
4-6	

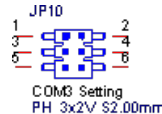
*: default



JP10: COM3

Setting	Function
1-2	RS-485
3-4	RS-422
5-6*	RS-232

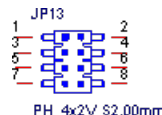
*: default



COM4/COM5 setting

JP13:	COM4	COM5	
Setting	Function	Setting	Function
5-6*	RS-485	1-2*	RS-485
7-8	RS-422	3-4	RS-422

*: default



Jumpers and Connectors

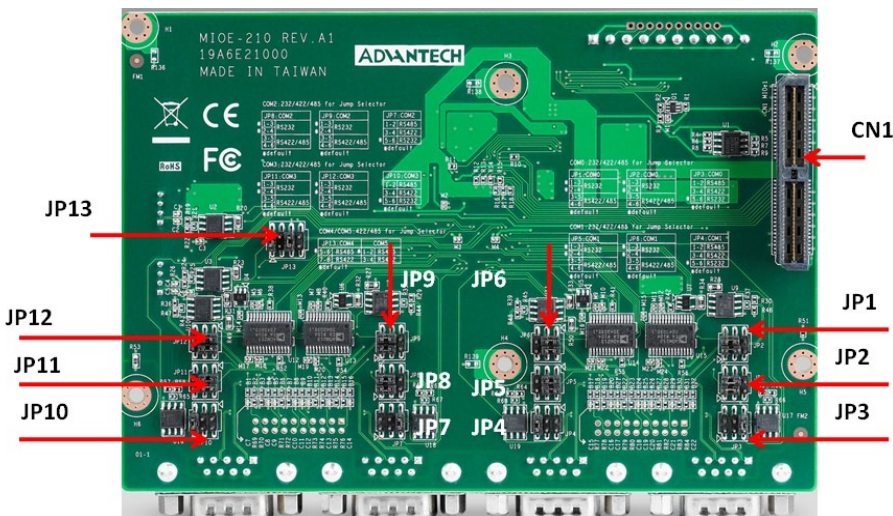


Figure 1: MIOE-210 Location Connectors (Top Side)

Connector Location

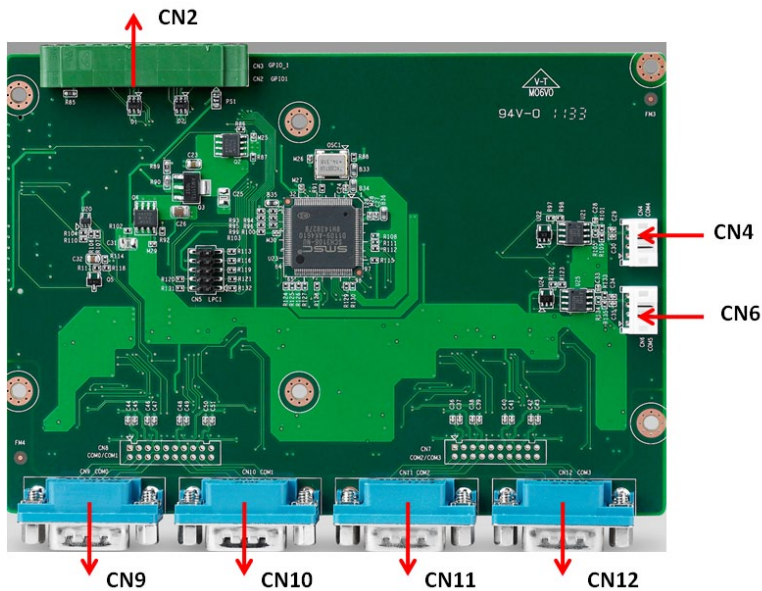


Figure 2: MIOe-210 Location Connectors (Bottom Side)

I/O Connectors

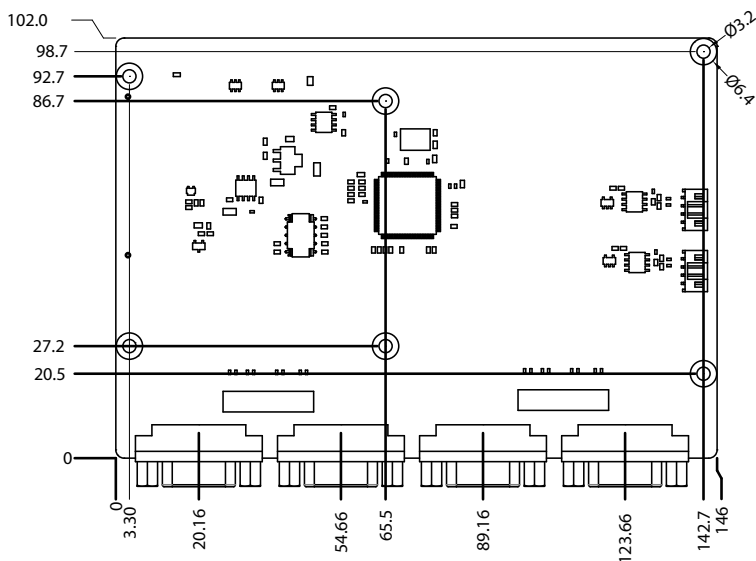


Figure 3: MIOe-210 Mechanical Drawing (Top Side)

Board Diagram

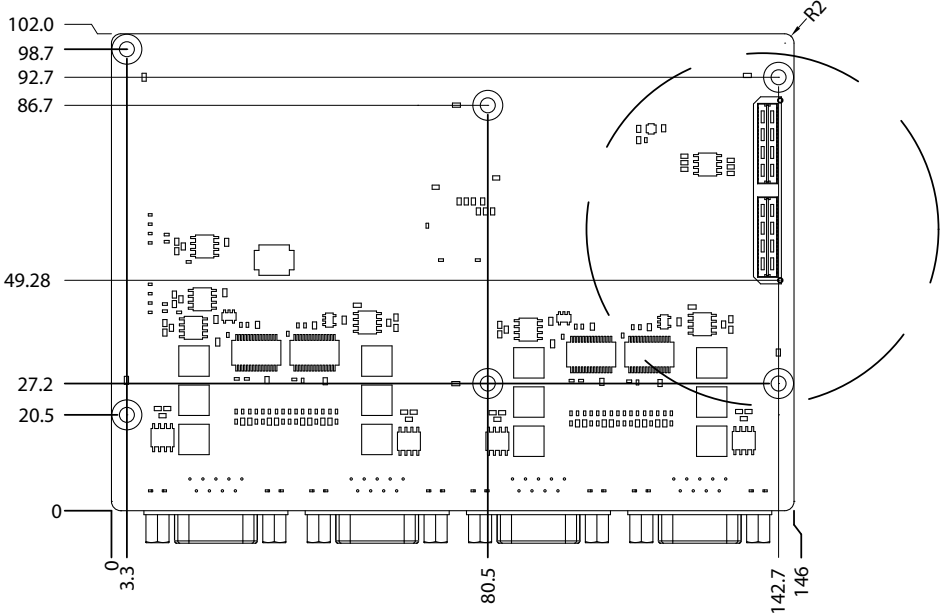


Figure 4: MIOe-210 Mechanical Drawing (Bottom Side)

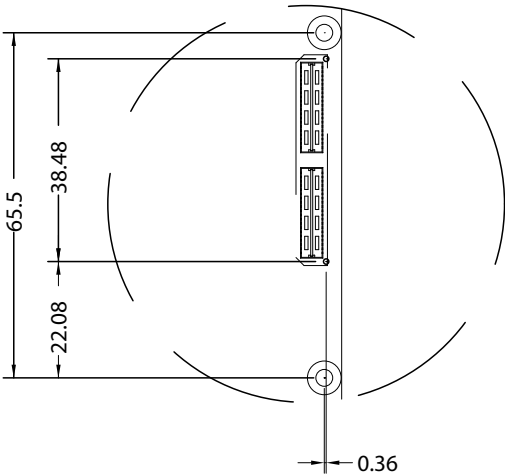


Figure 5: MIOe-210 Mechanical Drawing (Enlarged View)

