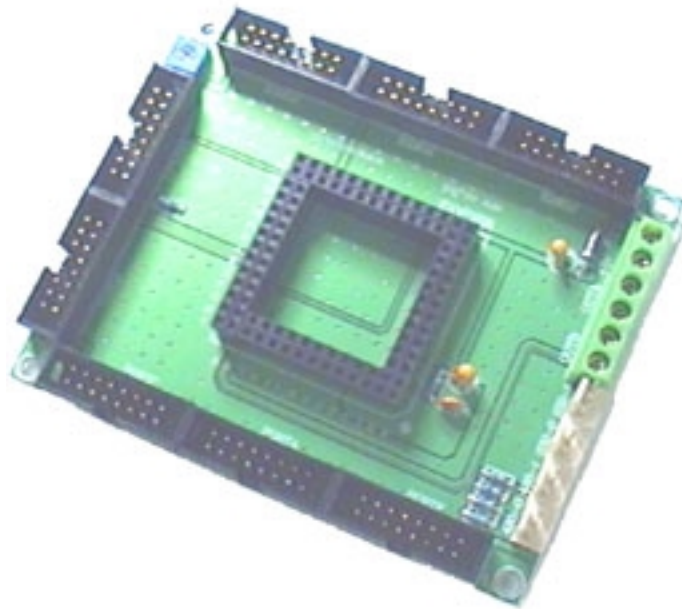


MEGAEX

for MEGABRAIN128



INTRODUCTION

The MEGAEX designed by ERE CO.,LTD is a development board. It help developer for MEGABRAIN128. The developer only plugs MEGABRAIN128 in the MEGAEX. The MEGAEX expands port of ATMEGA128 for connect to external I/O.

FEATURES

IDC Connector for I/O port

Character lcd module port

- Contrast adjustable

- Back-light current limit

2 channels RS232 connector for serial communication

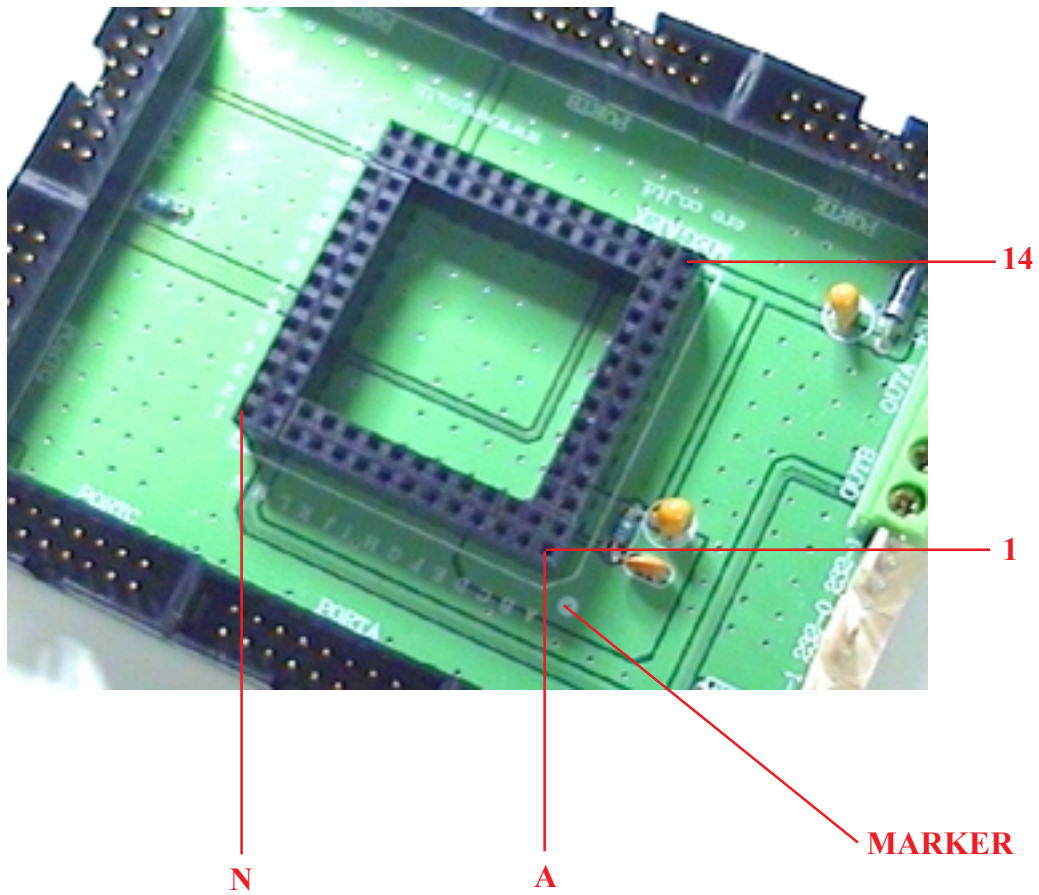
2 channels RS485 connector up to 1.2 Km serial communication

2 channels 0-5V digital to analog terminal

+5V power supply terminal

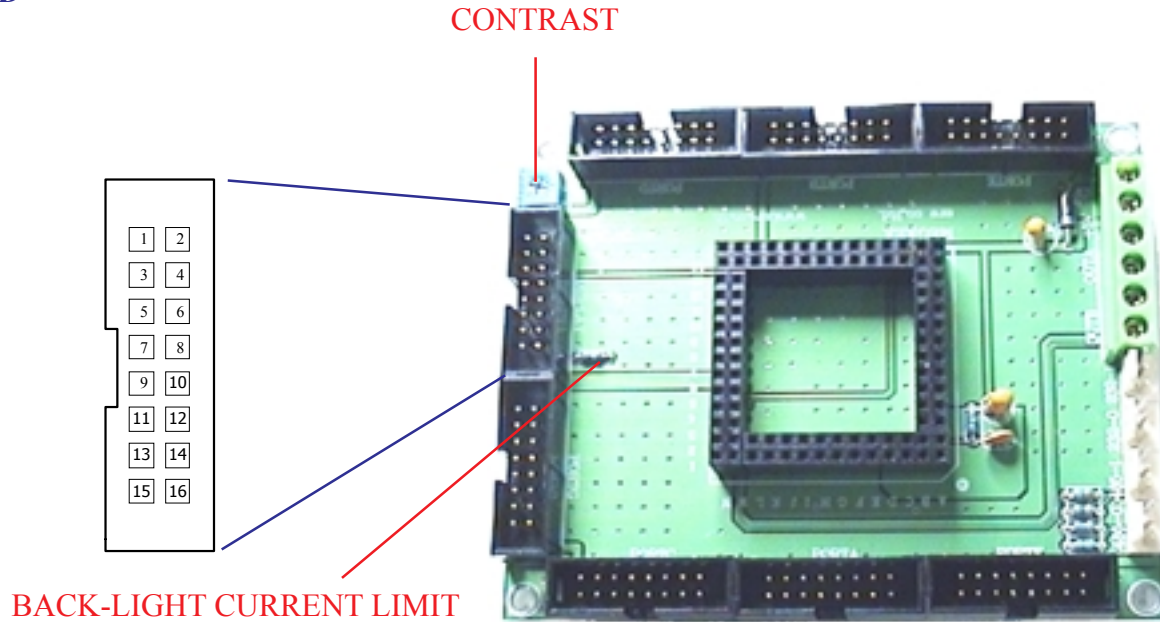
Low EMI pcb designed

PIN DIAGRAM



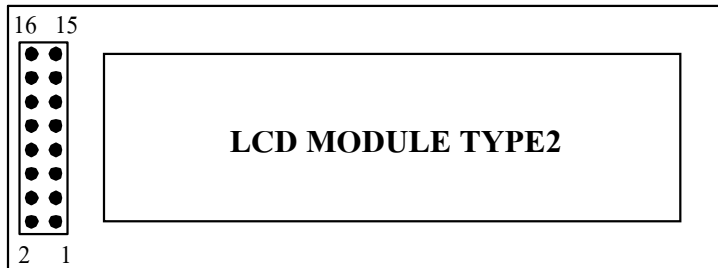
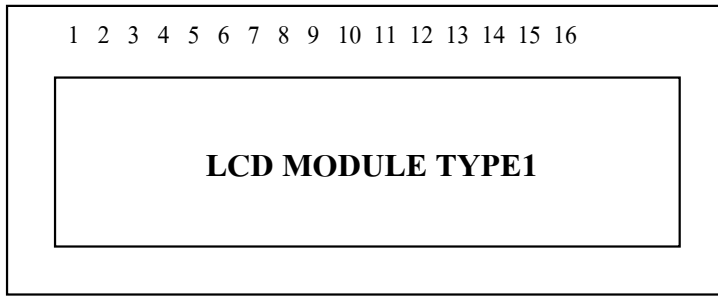
The main sockets on the MEGAEX board is provided for MEGABRAIN128. The marker of MEGAEX and MEGABRAIN128 are same position, when you plug the MEGABRAIN128 on the MEGAEX. The names are A to N in the rows and 1 to 14 in the columns.

LCD



PIN	NAME	DESCRIPTION
1	VCC	+5V power supply for lcd module
2	GND	Ground
3	RS	Register select of lcd controller
4	VO	Adjust contrast
5	E	Enable lcd
6	R/W	Read/Write lcd controller
7	D1	Data bit1
8	D0	Data bit0
9	D3	Data bit3
10	D2	Data bit2
11	D5	Data bit5
12	D4	Data bit4
13	D7	Data bit7
14	D6	Data bit6
15	BL-	Ground of back-light
16	BL+	+5V power supply for back-light

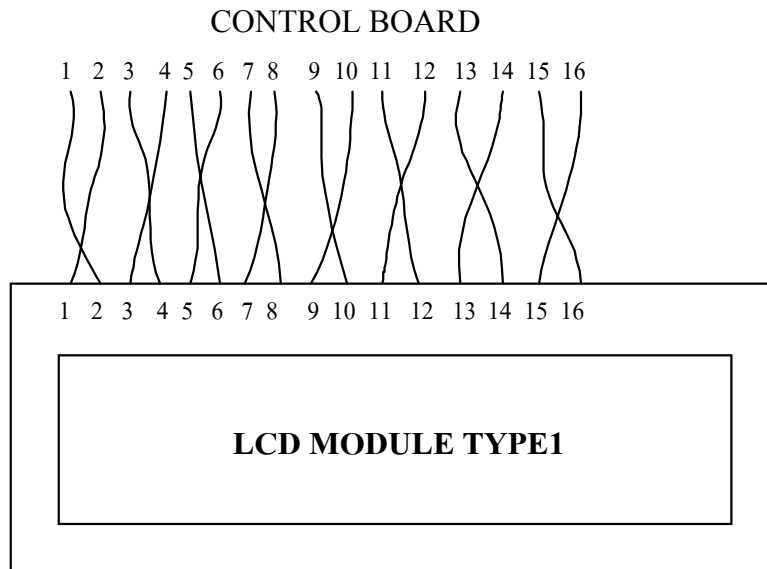
LCD MODULE



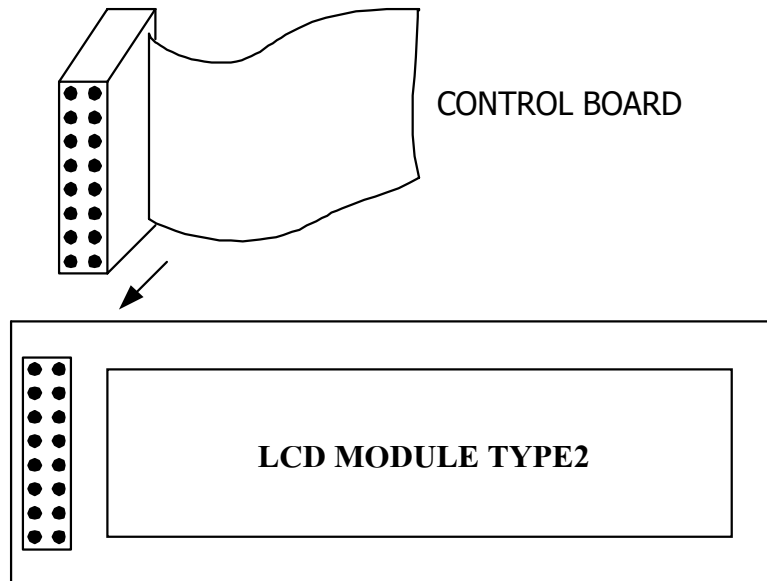
PIN	NAME	DESCRIPTION
1	VSS	Puppy Ground
2	VDD	Supply Volatge
3	VO	Contrast Adj
4	RS	Register Select
5	R/W	Read / Write
6	E	Enable Signal
7	DB0	Data Bit0
8	DB1	Data Bit1
9	DB2	Data Bit2
10	DB3	Data Bit3
11	DB4	Data Bit4
12	DB5	Data Bit5
13	DB6	Data Bit6
14	DB7	Data Bit7
15	A	LED Power
16	K	LED Power

INTERFACE LCD

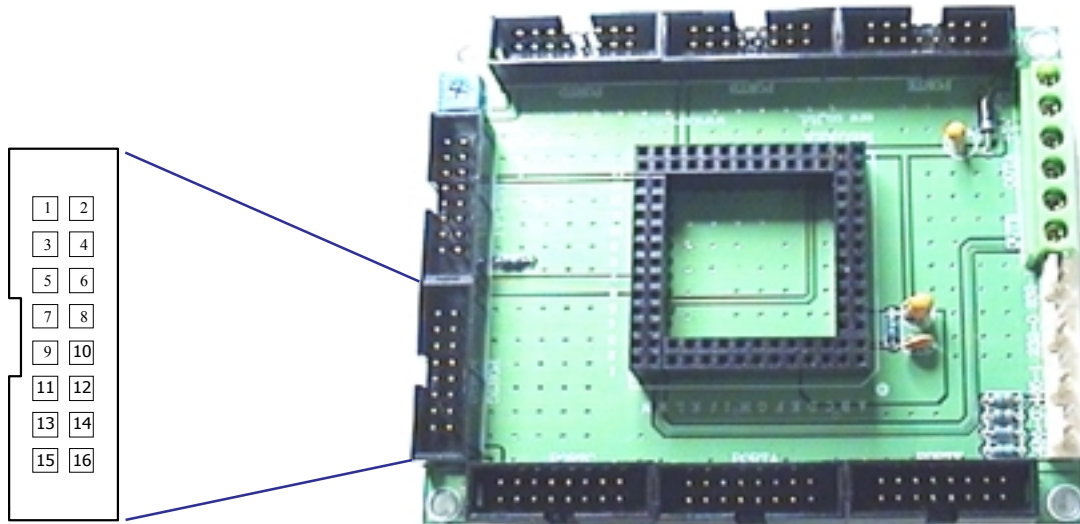
If you use type1 lcd module with MEGAEX board. You must swap cable because the IDC connector of lcd on the board is swapped row of pin.



From above, The IDC connector of lcd on the board is swapped the row. When you use type2 lcd module on control board. You can use IDC socket for connection by plug on back of lcd module.

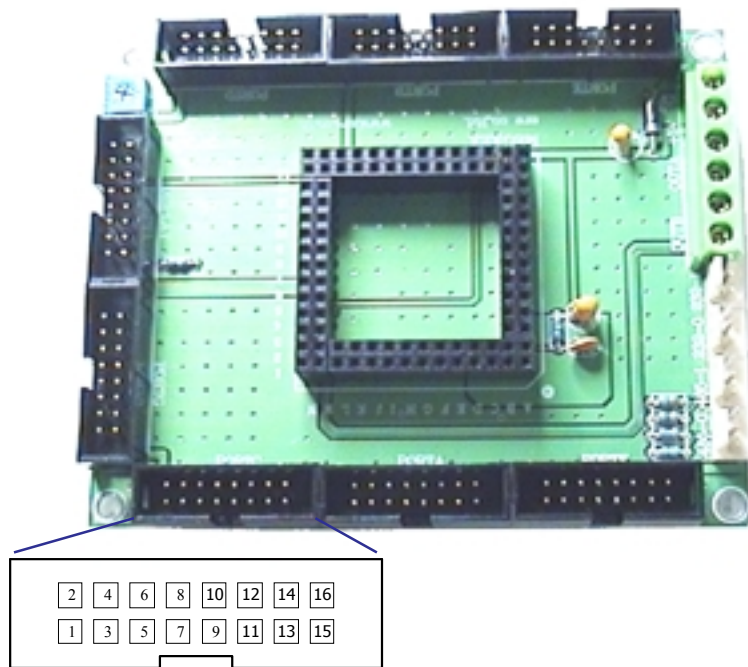


PORTG



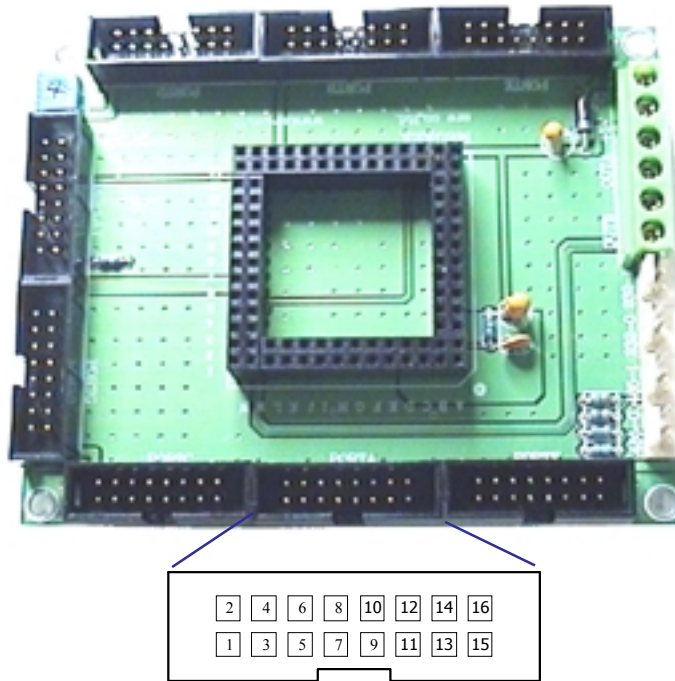
PIN	NAME	DESCRIPTION
1	PG0	Data bit0 of PORTG
2	GND	Ground
3	PG1	Data bit1 of PORTG
4	GND	Ground
5	PG2	Data bit2 of PORTG
6	GND	Ground
7	PG3	Data bit3 of PORTG
8	GND	Ground
9	PG4	Data bit4 of PORTG
10	GND	Ground
11	PG5	Data bit5 of PORTG
12	GND	Ground
13	PG6	Data bit6 of PORTG
14	GND	Ground
15	PG7	Data bit7 of PORTG
16	VCC	+5V

PORTC



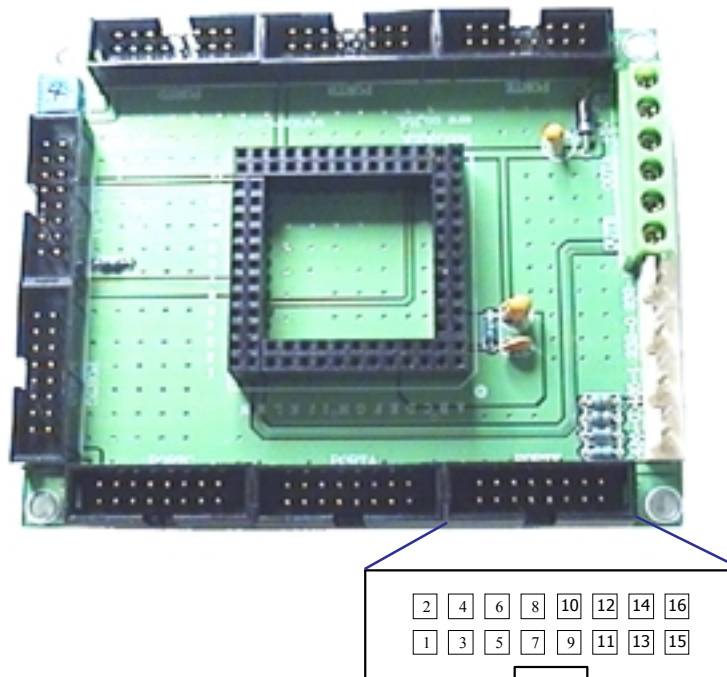
PIN	NAME	DESCRIPTION
1	PC0	Data bit0 of PORTC
2	GND	Ground
3	PC1	Data bit1 of PORTC
4	GND	Ground
5	PC2	Data bit2 of PORTC
6	GND	Ground
7	PC3	Data bit3 of PORTC
8	GND	Ground
9	PC4	Data bit4 of PORTC
10	GND	Ground
11	PC5	Data bit5 of PORTC
12	GND	Ground
13	PC6	Data bit6 of PORTC
14	GND	Ground
15	PC7	Data bit7 of PORTC
16	VCC	+5V

PORTA



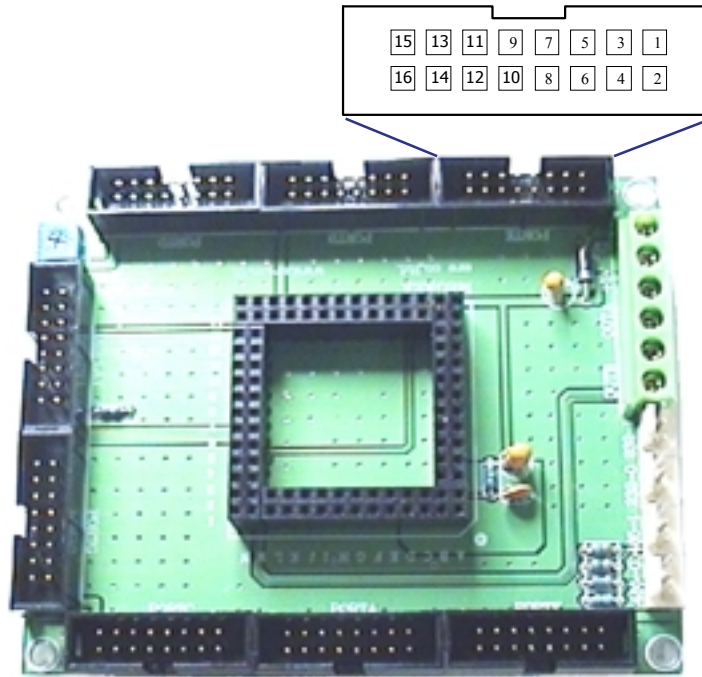
PIN	NAME	DESCRIPTION
1	PA0	Data bit0 of PORTA
2	GND	Ground
3	PA1	Data bit1 of PORTA
4	GND	Ground
5	PA2	Data bit2 of PORTA
6	GND	Ground
7	PA3	Data bit3 of PORTA
8	GND	Ground
9	PA4	Data bit4 of PORTA
10	GND	Ground
11	PA5	Data bit5 of PORTA
12	GND	Ground
13	PA6	Data bit6 of PORTA
14	GND	Ground
15	PA7	Data bit7 of PORTA
16	VCC	+5V

PORTF



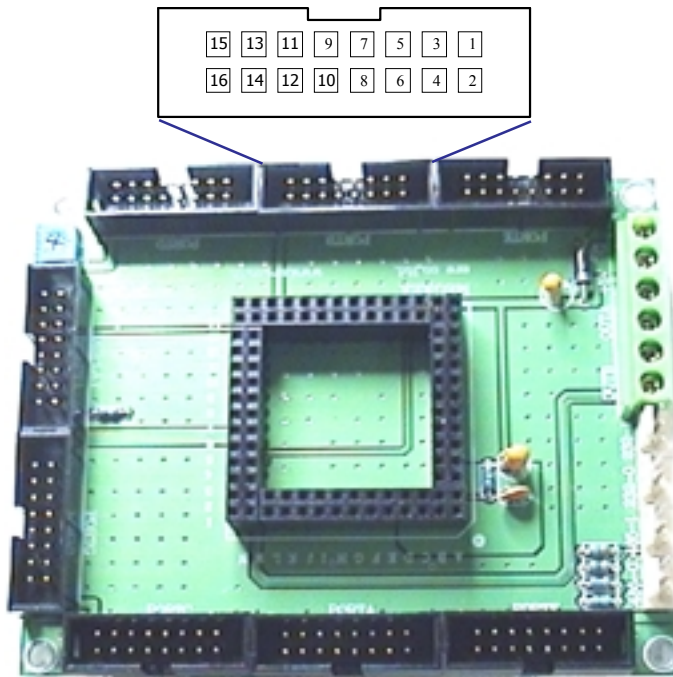
PIN	NAME	DESCRIPTION
1	PF0	Data bit0 of PORTF
2	GND	Ground
3	PF1	Data bit1 of PORTF
4	GND	Ground
5	PF2	Data bit2 of PORTF
6	GND	Ground
7	PF3	Data bit3 of PORTF
8	GND	Ground
9	PF4	Data bit4 of PORTF
10	GND	Ground
11	PF5	Data bit5 of PORTF
12	GND	Ground
13	PF6	Data bit6 of PORTF
14	GND	Ground
15	PF7	Data bit7 of PORTF
16	VCC	+5V

PORTE



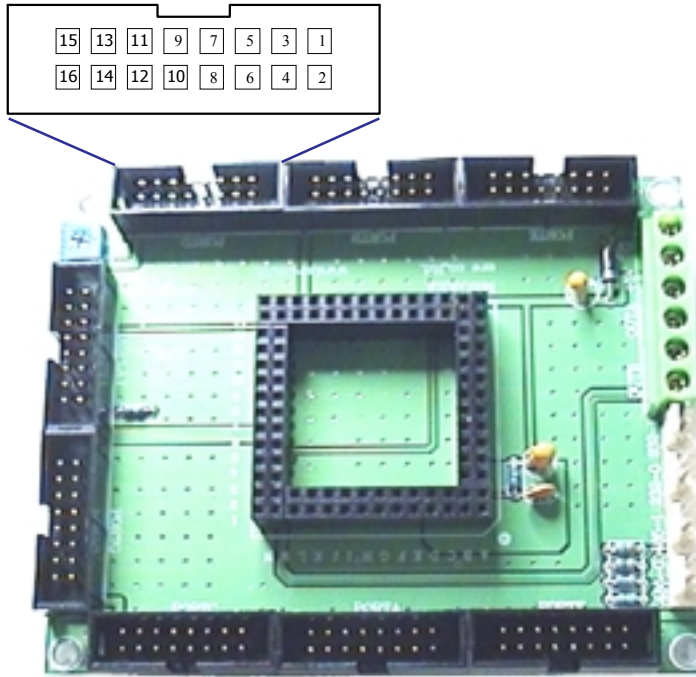
PIN	NAME	DESCRIPTION
1	PE0	Data bit0 of PORTE
2	GND	Ground
3	PE1	Data bit1 of PORTE
4	GND	Ground
5	PE2	Data bit2 of PORTE
6	GND	Ground
7	PE3	Data bit3 of PORTE
8	GND	Ground
9	PE4	Data bit4 of PORTE
10	GND	Ground
11	PE5	Data bit5 of PORTE
12	GND	Ground
13	PE6	Data bit6 of PORTE
14	GND	Ground
15	PE7	Data bit7 of PORTE
16	VCC	+5V

PORTB



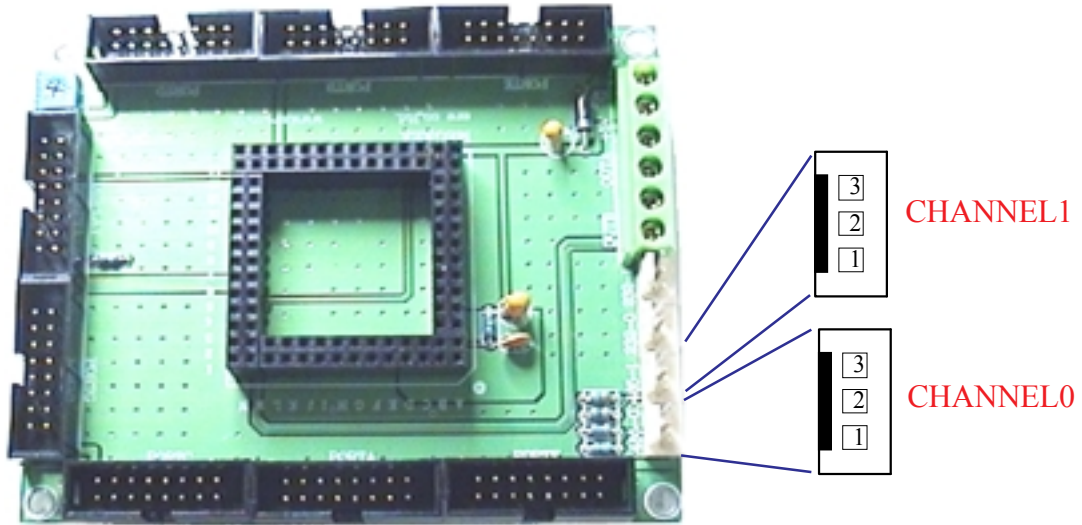
PIN	NAME	DESCRIPTION
1	PB0	Data bit0 of PORTB
2	GND	Ground
3	PB1	Data bit1 of PORTB
4	GND	Ground
5	PB2	Data bit2 of PORTB
6	GND	Ground
7	PB3	Data bit3 of PORTB
8	GND	Ground
9	PB4	Data bit4 of PORTB
10	GND	Ground
11	PB5	Data bit5 of PORTB
12	GND	Ground
13	PB6	Data bit6 of PORTB
14	GND	Ground
15	PB7	Data bit7 of PORTB
16	VCC	+5V

PORTD



PIN	NAME	DESCRIPTION
1	PD0	Data bit0 of PORTD
2	GND	Ground
3	PD1	Data bit1 of PORTD
4	GND	Ground
5	PD2	Data bit2 of PORTD
6	GND	Ground
7	PD3	Data bit3 of PORTD
8	GND	Ground
9	PD4	Data bit4 of PORTD
10	GND	Ground
11	PD5	Data bit5 of PORTD
12	GND	Ground
13	PD6	Data bit6 of PORTD
14	GND	Ground
15	PD7	Data bit7 of PORTD
16	VCC	+5V

RS485



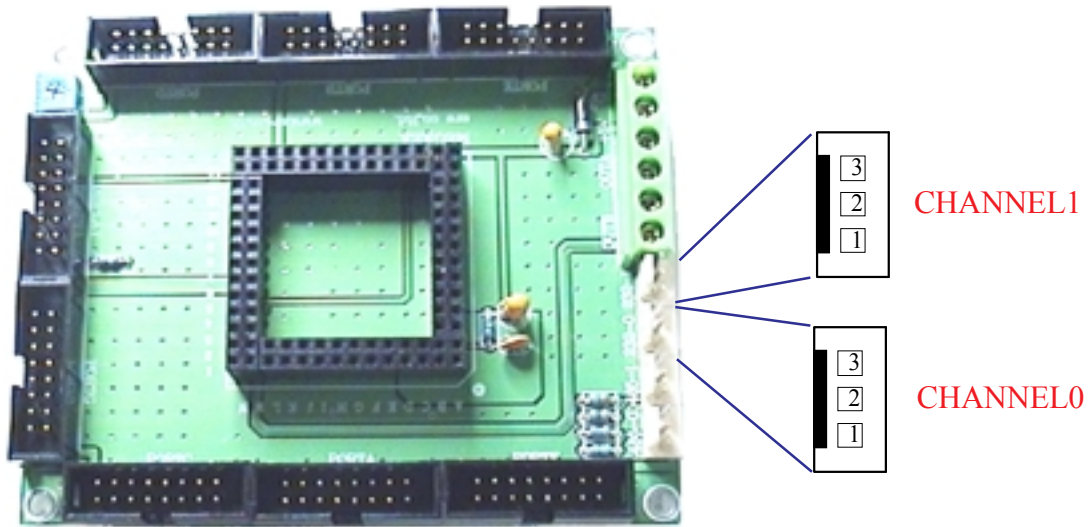
CHANNEL0

PIN	NAME	DESCRIPTION
1	A0	A (+) signal
2	B0	B (-) signal
3	GND	Ground

CHANNEL1

PIN	NAME	DESCRIPTION
1	A1	A (+) signal
2	B1	B (-) signal
3	GND	Ground

RS232



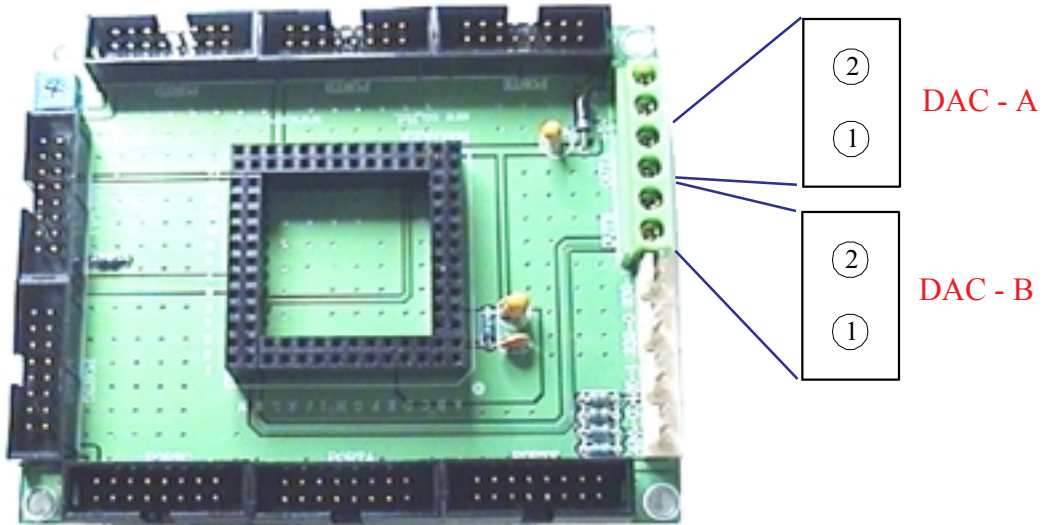
CHANNEL0

PIN	NAME	DESCRIPTION
1	RX0	RX signal
2	TX0	TX signal
3	GND	Ground

CHANNEL1

PIN	NAME	DESCRIPTION
1	RX1	RX signal
2	TX1	TX signal
3	GND	Ground

DAC



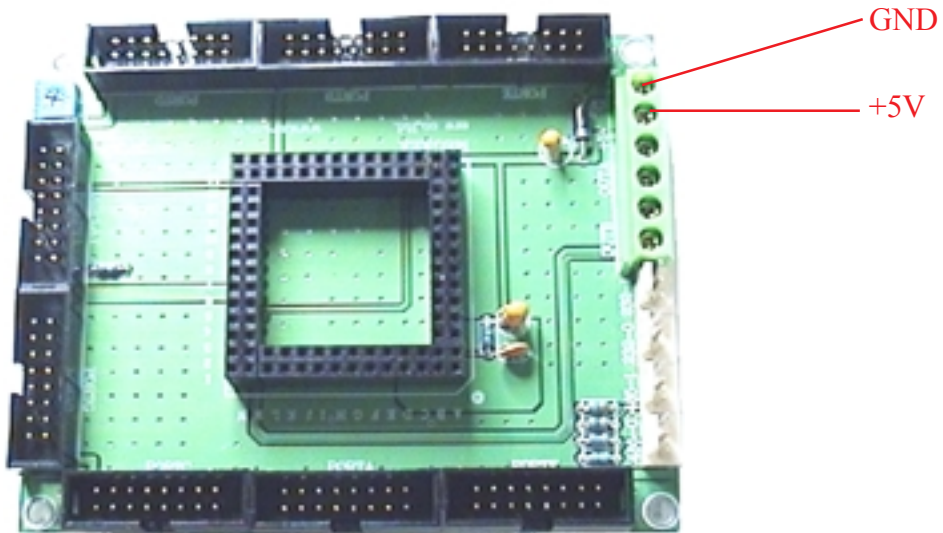
CHANNEL-A

PIN	NAME	DESCRIPTION
1	OUTA	Analog voltage
2	AGND	Analog ground

CHANNEL-B

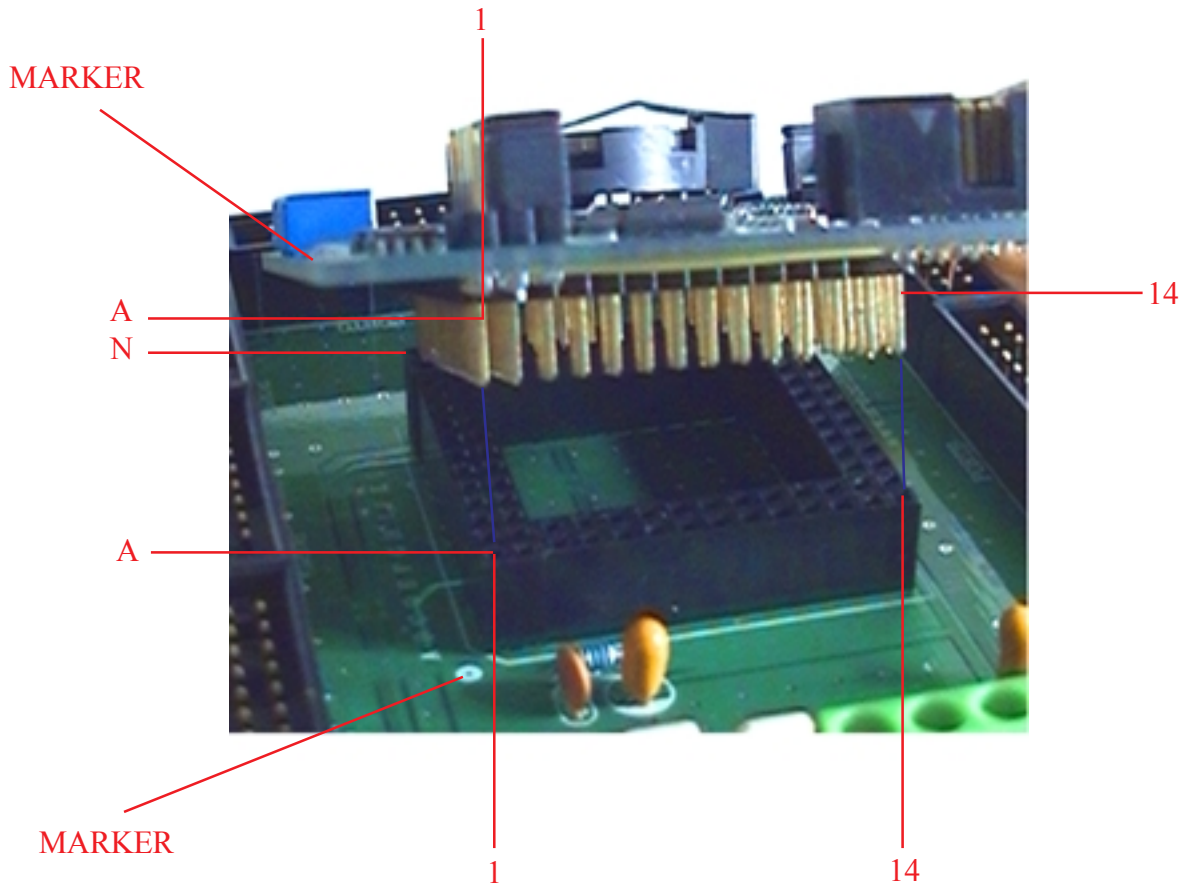
PIN	NAME	DESCRIPTION
1	OUTB	Analog voltage
2	AGND	Analog ground

POWER SUPPLY



+5 volt power supply is connected to the terminal on the MEGAEX .

PLUG-IN



When you plug the MEGABRAIN128 on the MEGAEX for development. The maker and the pins of they must plug in the same position.

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