

MINI-MAX Microcontroller Board Family Interchangeable Port Mapping

Keypad Conn. Pin #	Universal Pin Names	Arduino Port Pin #	Keypad Conn. J1 MM/51	Keypad Conn. X4 MM/AVR-C	Keypad Conn. X2 MM/AVR-BU	Keypad Conn. J1 MM/ARM	Keypad Conn. J1 MM/P18	Keypad Conn. X1 MM/MSP430	Keypad Conn. X1 MM/STM32
1	KEY0	AIN8	P2.0	PK0	PA0	P1.16	RD0	P6.0	PE0
2	KEY1	AIN9	P2.1	PK1	PA1	P1.17	RD1	P6.1	PE1
3	KEY2	AIN10	P2.2	PK2	PA2	P1.18	RD2	P6.2	PE2
4	KEY3	AIN11	P2.3	PK3	PA3	P1.19	RD3	P6.3	PE3
5	KEY4	7	P2.4	PH4	PA4	P1.20	RD4	P6.4	PE4
6	KEY5	8	P2.5	PH5	PA5	P1.21	RD5	P6.5	PE5
7	KEY6	9	P2.6	PH6	PA6	P1.22	RD6	P6.6	PE6
8	KEY7	N/A	P2.7	PH7	PA7	P1.23	RD7	P1.7	PE7
9	Ground		Ground	Ground	Ground	Ground	Ground	Ground	Ground
10	VCC		VCC	+5V	+5V	VCC	VCC	VCC	VCC

LCD Conn. Pin #	Universal Pin Names	Arduino Port Pin #	LCD Conn. J3 MM/51	LCD Conn. X3 MM/AVR-C	LCD Conn. X9 MM/AVR-BU	LCD Conn. J2 MM/ARM	LCD Conn. J3 MM/P18	LCD Conn. X2 MM/MSP430	LCD Conn. X2 MM/STM32
1	GND		GND	GND	GND	GND	GND	GND	GND
2	VCC		VCC	VCC	VCC	VCC	VCC	VCC	VCC
3	Vee		Vee	V-PWM	Vee (PWM: PB7)	Vee	Vee	Vee (PWM: P8.2)	PWM(PE14)
4	CTRL	45	P0.0	PL4	PB4	P0.17	RE2	P1.0	PA5
5	READ	44	P0.1	PL5	PB5	AVR - PB4	RE0	P1.4	PD1
6	STROBE	43	P0.2	PL6	PB6	P0.18	RE1	P1.3	PA6
7	NC		P0.3	NC	PC4	AVR - PD5	NC	P4.4	PE11
8	NC		NC	NC	NC	AVR - PD1	NC	NC	NC
9	NC		NC	NC	PC6	AVR - PD0	NC	P4.5	PE12
10	NC		NC	NC	PC7	AVR - PD2	NC	P4.6	PE13
11	LD0	49	P0.4	PL0	PC0	P0.19	RB0	P4.0	PA7
12	LD1	48	P0.5	PL1	PC1	P0.21	RB1	P4.1	PE9
13	LD2	47	P0.6	PL2	PC2	P0.22	RB2	P4.2	PE10
14	LD3	46	P0.7	PL3	PC3	P0.23	RB3	P4.3	PE11

Exp. Conn. Pin #	Universal Pin Names	Arduino Port Pin #	Exp. Conn. J4 MM/51	Exp. Conn. X6 MM/AVR-C	Exp. Conn. X6 MM/AVR-AU	Exp. Conn. X8 MM/AVR-BU	Exp. Conn. J3 MM/ARM	Exp. Conn. X1 MM/ARM9260	Exp. Conn. J4 MM/P18	Exp. Conn. X3 MM/MSP430	Exp. Conn. X3 MM/STM32
1	GND		GND	GND	GND	GND	GND	GND	GND	GND	GND
2	VCC (+5V)		VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)
3	GND		GND	GND	GND	GND	GND	GND	GND	GND	GND
4	VCC (+5V)		VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)	VCC (+5V)
5	I2C SDA	20 (SDA)	P1.7	PD1	PC5	PD1	P0.3	PA23	RC4	P3.7	PB7
6	I2C SCL	21 (SCL)	P1.6	PD0	PC6	PD0	P0.2	PA24	RC3	P5.4	PB6
7	IO4	N/A	P1.5	PD6	PD1	PF7	P0.14	PC1	RA2	P2.4	PD4
8	IO5	38	P1.4	PD7	PD4	PE7	P0.15	PA6	RC5	P2.5	PD3
9	IO2	12	P1.3	PB6	PD0	PF6	P0.12	PB15	RA1	P2.2	PD15
10	IO3	13	P1.2	PB7	PC4	PE6	P0.13	PB14	RA0	P2.3	PD0
11	IO0	10	P1.1	PB4	PC7	PF5	P0.10	PB16	RC2	P2.0	PD13
12	IO1	11	P1.0	PB5	PC2	PE5	P0.11	PB17	RB7	P2.1	PD14
13	MOSI	51	P3.7	PB2	PB2	PB2	P0.6	PB1	RA5	P3.1	PB15
14	IO22	30	P3.6	PC7	PB7	PE4	P1.24	PA31	RC0	P2.7	PB9
15	SS	53	P3.5	PB0	PB0	PB0	P0.7	PB3	RA4	P3.0	PB12
16	SCK	52	P3.4	PB1	PB1	PB1	P0.4	PB2	RC1	P3.3	PB13
17	MISO	50	P3.3	PB3	PB3	PB3	P0.5	PB0	RB3 or RB5	P3.2	PB14
18	IO6	N/A	P3.2	PH2	PB6	PE1	P0.26	PA30	RB6	P2.6	PB8
19	/TXD2	16	P3.1	PH1	PD3	PD3	P0.0	PB8	RC6	P1.6	PD5/TX2
20	/RXD2	17	P3.0	PH0	PD2	PD2	P0.1	PB9	RC7	P1.5	PD6/RX2

Analog Conn. Pin #	Universal Pin Names	Arduino Port Pin #	Analog Conn. J6 MM/51	Analog Conn. X10 MM/AVR-C	Analog Conn. X6 MM/AVR-BU	Analog Conn. J8 MM/ARM	Analog Conn. X14 MM/ARM9260	Analog Conn. X10 MM/MSP430	Analog Conn. X4 MM/STM32
1	AN0	AIN0	AN0	AN0 (PF0/ADC0)	AN0 (PF0/ADC0)	AN0 (P0.27)	AN0 (PC0)	AN0 (P7.7)	AN0(PA3)
2	AN1	AIN1	AN1	AN1 (PF1/ADC1)	AN1 (PF1/ADC1)	AN1 (P0.28)	AN1 (PC1)	AN1 (P7.6)	AN1(PA2)
3	AGND		AGND	AGND	AGND	AGND	AGND	AGND	AGND
4	AN2	AIN2	AN2	AN2 (PF2/ADC2)	AN2 (PF2/ADC2)	AN2 (P0.29)	AN2 (PC2)	AN2 (P7.5)	AN2(PA1)
5	AGND		AGND	AGND	AGND	AGND	AGND	AGND	AGND
6	AN3	AIN3	AN3	AN3 (PF3/ADC3)	AN3 (PF3/ADC3)	AN3 (P0.30)	AN3 (PC3)	AN3 (P7.4)	AN3(PA0)
7	VREF		VREF	VREF (1.1V/2.56V)	AREF (2.56V)	VREF (3V)	VREF (3V)	VREF (3V)	VREF (3V)
8	AN4	AIN15	AN4	AN4 (PK7/ADC15)	AN4 (PF4/ADC4)	AN4 (P0.25)	WKUP	AN4 (P6.7)	AN4(PC3)
9	AGND		AGND	AGND	AGND	AGND	AGND	AGND	AGND
10	VAN		VAN	VAN	VAN	VAN	VAN	VAN	VAN

Important NOTE: MINI-MAX/51-C2 Terminal Block Pinout is reverse of other boards