Board Pin	µC Port	Signal	Function
X1-1		GND	Signal ground
X1-2		GND	Signal ground
X1-3	PB5	Input	Rotary encoder signal A
X1-4	PB7	Input	Joystick button
X1-5	PB4	Input	DCF77 module data input
X1-6	PB6	Input	Rotary encoder button
X1-7	PB3	MISO	SPI Master Input/Slave Output (+ISP output)
X1-8	PB0	SS	SPI Slave Select (toggle ADXL - extern SPI)
X1-9	PB2	MOSI	SPI Master Output/Slave Input (+ISP input)
X1-10		CLKI	External microcontroller clock in signal
X1-11	PB1	SCK	SPI Serial Clock
X1-12	PD5	Output	Display RW signal
X1-13	PD7	Output	Display E signal
X1-14	PD3	TXD1	USART 1 Transmit
X1-15	PD1	SDA	TWI (I²C) Serial Data
X1-16	PG5	PWM Output B Timer 0	Buzzer / Speaker
X1-17	PD0	SCL	TWI (I²C) Serial Clock
X1-18	PG2	Input	Rotary encoder signal B
X1-19		RSTN	Reset (low active)
X1-20	PG1	Output	Red LED (low active)
X1-21		AREF	Analog reference input
X1-22		GND	Signal ground
X1-23		+3.3V	Battery or external supply
X1-24		+5.0V	DCDC converter supply
X2-1		+3.3V	Battery or external supply
X2-2		GND	Signal ground
X2-3	PE0	Output/Input	Display DATA0 signal
X2-4	PD2	RXD1	USART 1 Receive
X2-5	PE0	Output/Input	Display DATA1 signal
X2-6	PD6	Output	Display A0 signal + ext. EEPROM power
X2-7	PE2	Output/Input	Display DATA2 signal
X2-8	PE3	Output/Input	Display DATA3 signal
X2-9	PD4	Output	Display CS signal
X2-10	PE4	Output/Input	Display DATA4 signal
X2-11	PF0	ADC0	Microphone differential input (-)
X2-12	PE5	Output/Input	Display DATA5 signal
X2-13	PF1	ADC1	Microphone differential input (+)
X2-14	PE6	Output/Input	Display DATA6 signal
X2-15	PF4	ADC4	External light sensor
X2-16	PE7	Output/Input	Display DATA7 signal
X2-17	PF5	ADC5	Analog joystick input
X2-18	PF2	ADC2	External temperature sensor
X2-19	PF6	Output	Green LED (low active)
X2-20		RSTON	Reset out (low = internal reset active)
X2-21	PF7	Output	Yellow LED (low active)
X2-22		GND	Signal ground
X2-23		GND	Signal ground
X2-24		+5.0V	DCDC converter supply

Pin	SPI
1	Slave Select
2	MISO
3	MOSI
4	Serial Clock
5	GND
6	+3.3V supply (out)

Pin	I²C
1	SDA
2	SCL
3	GND
4	+3.3V supply (out)

Pin	UART
1	GND
2	-
3	5.0V supply (in)
4	RXD
5	TXD
6	-

Pin	ISP
1	Programming output
2	Supply voltage sense
3	Programming clock
4	Programming input
5	Reset
6	GND

Pin	DCF77
1	+3.3V supply (out)
2	GND
3	Data
4	Power On (low active)