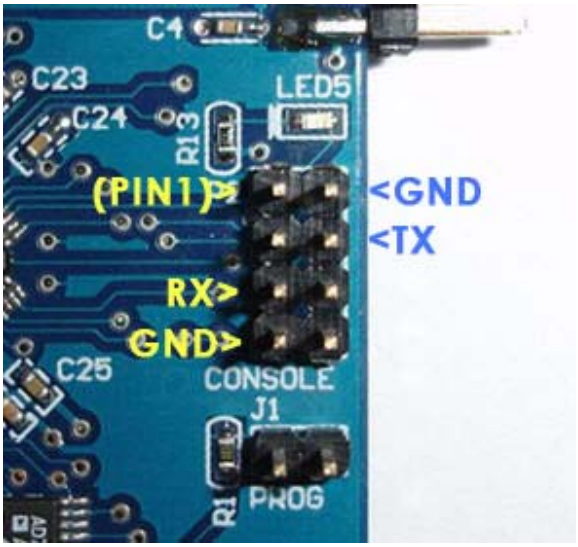
Blue Screen

Application Note ANBS1.00.02 [Issued date August 22, 2008]

Quick reference guide for port connections

This document illustrates the Blue Screen's port connections including console port, external module port and general purpose ports. It aims to allow users to use these ports comfortably.

1. Console



ThaiEasyElec's console port consists of 8 pins as described below:

Pin1, Pin8: 3.3V from USB to Serial module, no connection

Pin2, Pin7: ground

Pin3: 5V from USB to Serial module, it lights up LED5 (used to indicate the right connection for USB to Serial module)

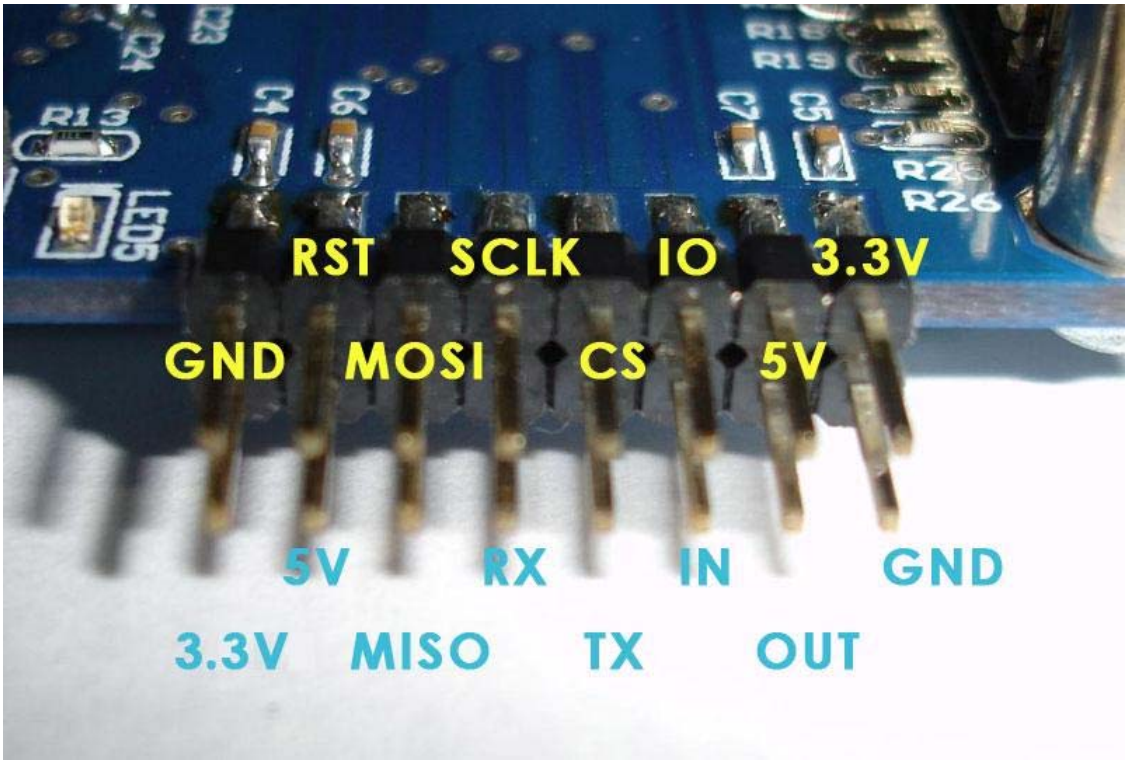
Pin4: TX (output)

Pin5: RX (input)

Pin6: no connection

Note: the console port is connected to UART0.

2. External module port



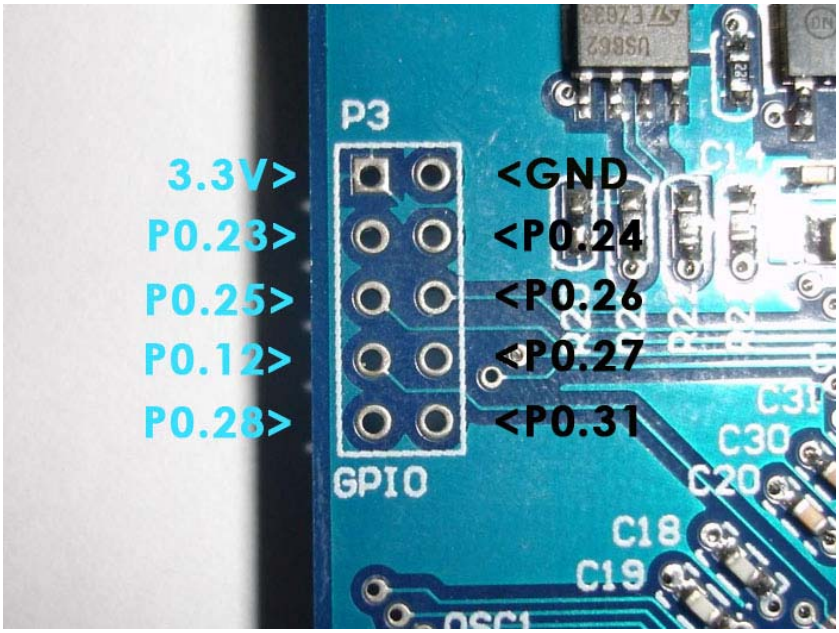
External module port consists of UART, SPI signals and general purpose I/Os. ThaiEasyElec's module such as VS1011 module and ID-12 module can be connected directly. Without using external module, these ports can served as general purpose I/O or other functions.

Pin	Function (ext. module)	MCU Pin	Other function(s)
1, 16	3.3V	-	-
2, 15	Ground	-	-
3, 14	5V	-	-
4	MOD_RST	P4.29	GPIO, MAT2.1, RXD3
5	MOD_MISO	P0.8	GPIO, I2STX_WS, MAT2.2
6	MOD_MOSI	P0.9	GPIO, I2STX_SDA, MAT2.3
7	MOD_RX	P2.1	GPIO, PWM1.2
8	MOD_SCLK	P0.7	GPIO, I2STX_CLK, MAT2.1
9	MOD_TX	P2.0	GPIO, PWM1.1
10	MOD_CS	P0.6	GPIO, I2SRX_SDA, MAT2.0

Pin	Function (ext. module)	MCU Pin	Other function(s)
11	MOD_IN	P0.4	I2SRX_CLK, RD2, CAP2.0
12	MOD_IO	P0.5	I2SRX_WS, TD2, CAP2.1
13	MOD_OUT	P2.11	GPIO, EINT1

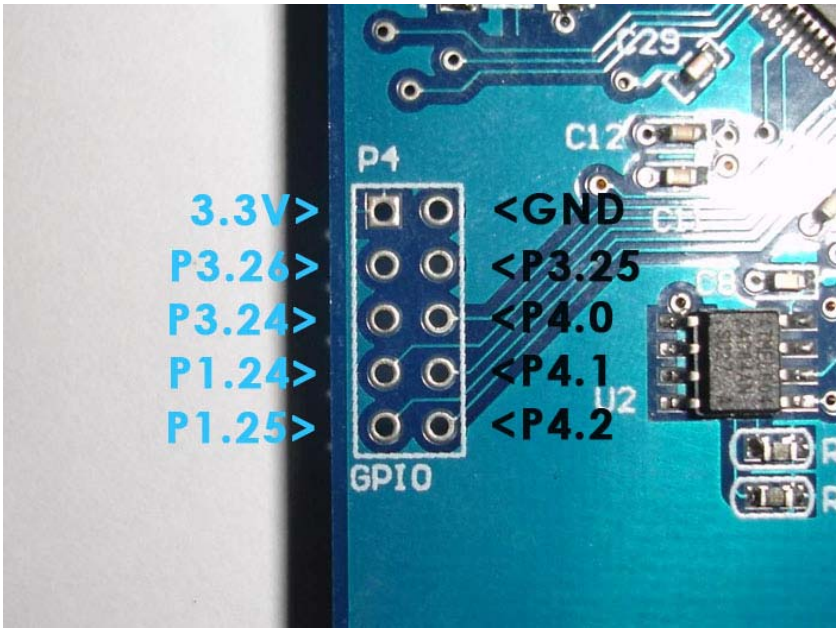
Note: SPI signals are connected to SPI0 (SSP0) and UART signals are connected to UART1.

3. GPIO#1



Pin	MCU Pin	Function(s)
1	-	3.3V
2	-	Ground
3	P0.23	GPIO, AD0.0, I2SRX_CLK, CAP3.0
4	P0.24	GPIO, AD0.1, I2SRX_WS, CAP3.1
5	P0.25	GPIO, AD0.2, I2SRX_SDA, TXD3
6	P0.26	GPIO, AD0.3, AOUT, RXD3
7	P0.12	GPIO, AD0.6
8	P0.27	GPIO, SDA0
9	P0.28	GPIO, SCL0
10	P0.31	GPIO

4. GPIO#2



Pin	MCU Pin	Function(s)
1	-	3.3V
2	-	Ground
3	P3.26	GPIO, MAT0.1, PWM1.3
4	P3.25	GPIO, MAT0.0, PWM1.2
5	P3.24	GPIO, CAP0.1, PWM1.1
6	P4.0	GPIO
7	P1.24	GPIO, PWM1.5
8	P4.1	GPIO
9	P1.25	GPIO, MAT1.1
10	P4.2	GPIO