DAvE's Project Documentation

Project: **keiltest.DAV**

Controller: **XC866-4FR**

Compiler: **Keil**

Date: **10.02.2005 10:10:14**

**Please read this document carefully and note**

**the red-colored hints.**

**If you miss a file in the generated files list**

**maybe you have forgotten to select the**

**initialisation function of the related module.**

Generated Files:

**MAIN.H**

**MAIN.C**

**START\_XC.A51**

**IO.H**

**IO.C**

**UART.H**

**UART.C**

**T01.H**

**T01.C**

**KEILTEST.ASM**

Project Settings

Macros:

Functions:

Function:

**void MAIN\_vInit(void)**

Description:

*This function initializes the microcontroller. It is*

*assumed that the SFRs are in their reset state.*

Returnvalue:

**None**

Parameters:

**None**

Function:

**void main(void)**

Description:

*This is the main function.*

Returnvalue:

**None**

Parameters:

**None**

Initialization:

**Configuration of the System Clock:**

**- External Osc is selected (configuration is done in the startup file**

**'START\_XC.A51')**

**- PLL Mode, NDIV = 11**

**- input frequency is 5 MHz**

**Initialization of module 'GPIO'**

**Initialization of module 'UART (Serial Interface)'**

**Initialization of module 'Timer 0/1'**

GPIO

Macros:

Functions:

Function:

**void IO\_vInit(void)**

Description:

*This is the initialization function of the IO function*

*library. It is assumed that the SFRs used by this library*

*are in their reset state.*

Returnvalue:

**None**

Parameters:

**None**

Initialization:

**Configuration of Port P0:**

**- no pin of port P0 is used**

**Configuration of Port P1:**

**P1.0:**

**- is used as alternate input for the UART Receive Input**

**- pull-up device is assigned**

**P1.1:**

**- is used as alternate output for the UART Transmit Output**

**- push/pull output is selected**

**- pull-up device is assigned**

**Configuration of Port P2:**

**- no pin of port P2 is used**

**Configuration of Port P3:**

**P3.0:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.1:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.2:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.3:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.4:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.5:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

**P3.6:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull-down device is assigned**

**P3.7:**

**- is used as general purpose output**

**- push/pull output is selected**

**- the pin status is low level**

**- pull device is disabled (tristate)**

UART (Serial Interface)

Macros:

Functions:

Function:

**void UART\_vInit(void)**

Description:

*This is the initialization function of the UART function*

*library. It is assumed that the SFRs used by this library*

*are in their reset state.*

*The following SFR fields will be initialized:*

*- register SCON*

*- bits SMOD and ES*

Returnvalue:

**None**

Parameters:

**None**

Initialization:

**Pin TXD\_0 (P1.1) is selected for transmission**

**Pin RXD\_0 (P1.0) is selected for reception**

**Receiver enabled**

**Mode 1: 8-bit data, 1 start bit, 1 stop bit, variable baud rate**

**Baudrate generator settings**

**input clock = fPCLK**

**baudrate = 9,5785 kbaud**

Timer 0/1

Macros:

Functions:

Function:

**void T01\_vInit(void)**

Description:

*This is the initialization function of the Timer 0/1*

*function library. It is assumed that the SFRs used by this*

*library are in their reset state.*

*The following SFR fields will be initialized for both*

*timers 0 and 1:*

*T0M - Timer 0 mode*

*T1M - Timer 1 mode*

*GATE0/GATE1 - gating control*

*TLx, THx - timer low/high registers*

*ETx - interrupt enable*

*TRx - timer run control (this is the final*

*action)*

Returnvalue:

**None**

Parameters:

**None**

Function:

**void T01\_viTmr0(void)**

Description:

*This is the service routine for the timer 0 interrupt. It*

*is called*

*- when TH0 overflows if timer 0 is in mode 0 or 1*

*- when TL0 overflows if timer 0 is in mode 2 or 3*

*Please note that you have to add application specific code*

*to this function.*

Returnvalue:

**none**

Parameters:

**None**

Initialization:

**Timer 0**

**Mode 2: 8-bit timer (TL0) with 8-bit auto-reload (TH0)**

**the timer 0 overflow, calculated from the reload-value, is 19,200 µs**

**Timer 1**

**Mode 0: 8-bit timer (TH1) with a divide-by-32 prescaler (TL1)**

**the timer 1 overflow is 614,400 µs**

**Enable Timer 0 interrupt**

**Start Timer 0**