BLINK PAGE 1

1 ;======================================================================

2 ;

3 ; Author : ADI - Apps

4 ;

5 ; Date : January 2001

6 ;

7 ; File : Blink.asm

8 ;

9 ; Hardware : ADuC816

10 ;

11 ; Description : Blink LED with 100mSec delay for MicroConverter DEMO

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13 ;======================================================================

14 ;

15 $MOD52 ; Use 8052 predefined Symbols

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17 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18 ; BEGINNING OF CODE

---- 19 CSEG ; Defines the following as a segment of code

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0000 21 ORG 0000h

0000 020060 22 JMP MAIN

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24 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

25 ; MAIN PROGRAM

0060 26 ORG 0060h

0060 27 MAIN:

0060 7401 28 MOV A,#01H ; Set up delay = A\*100mSecs.

0062 B2B4 29 BLINK: CPL P3.4 ; blink LED using compliment instruction

0064 120069 30 CALL DELAY ; Call Software delay 100mS

0067 80F9 31 JMP BLINK ; Jump to Blink

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33 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

34 ; SUBROUTINES

0069 35 DELAY: ; Delays by 13,000 \* A instructions (approx)

36 ; 100mSec based on 1.5728MHZ Core Clock (default)

37

0069 F8 38 MOV R0,A ; Acc holds delay variable

006A 7941 39 DLY0: MOV R1,#65 ; Set up delay loop0

006C 7AC8 40 DLY1: MOV R2,#200 ; Set up delay loop1

006E DAFE 41 DJNZ R2,$ ; Dec R2 200 times

0070 D9FA 42 DJNZ R1,DLY1 ; Dec R1 65 times

0072 D8F6 43 DJNZ R0,DLY0 ; Dec R0 #ACC times

0074 22 44 RET ; Return from subroutine

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46 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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48 END

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VERSION 1.2h ASSEMBLY COMPLETE, 0 ERRORS FOUND

BLINK PAGE 2

BLINK. . . . . . . . . . . . . . C ADDR 0062H

DELAY. . . . . . . . . . . . . . C ADDR 0069H

DLY0 . . . . . . . . . . . . . . C ADDR 006AH

DLY1 . . . . . . . . . . . . . . C ADDR 006CH

MAIN . . . . . . . . . . . . . . C ADDR 0060H

P3 . . . . . . . . . . . . . . . D ADDR 00B0H PREDEFINED