BLINK PAGE 1

1 ;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

2 ;

3 ; Author : ADI - Apps www.analog.com/MicroConverter

4 ;

5 ; Date : October 2003

6 ;

7 ; File : blink.asm

8 ;

9 ; Hardware : ADuC841

10 ;

11 ; Description : Blinks LED continuously.

12 ; 200mSec period @ 50% duty cycle.

13 ;

14 ;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

15

16 $MOD841 ; use 8052 predefined symbols

17

00B4 18 LED EQU P3.4 ; P3.4 is red LED on eval board

19

20 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

21 ; MAIN PROGRAM

---- 22 CSEG

23

0000 24 ORG 0000h

0000 740A 25 MOV A,#010 ; set delay length

0002 B2B4 26 BLINK: CPL LED ; flash (complement) the red LED

0004 120009 27 CALL DELAY ; call software delay

0007 80F9 28 JMP BLINK ; repeat indefinately

29

30 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

31 ; SUBROUTINES

0009 32 DELAY: ; delay 10ms X A

0009 FD 33 MOV R5,A

000A 7F90 34 DLY2: MOV R7,#090h

000C 7EFF 35 DLY1: MOV R6,#0FFh

000E DEFE 36 DJNZ R6,$

0010 DFFA 37 DJNZ R7,DLY1

0012 DDF6 38 DJNZ R5,DLY2

0014 22 39 RET

40

41 ;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

42

43 END

VERSION 1.2h ASSEMBLY COMPLETE, 0 ERRORS FOUND

BLINK PAGE 2

BLINK. . . . . . . . . . . . . . C ADDR 0002H

DELAY. . . . . . . . . . . . . . C ADDR 0009H

DLY1 . . . . . . . . . . . . . . C ADDR 000CH

DLY2 . . . . . . . . . . . . . . C ADDR 000AH

LED. . . . . . . . . . . . . . . NUMB 00B4H

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