BLINK PAGE 1

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

2 ;

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

4 ;

5 ; Date : 31 JAN 2002

6 ;

7 ; File : blink.asm

8 ;

9 ; Hardware : Any 8052 based MicroConverter (ADuC8xx)

10 ;

11 ; Description : Blinks LED continuously.

12 ; 200mSec period @ 50% duty cycle.

13 ;

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

15

16 $MOD52 ; 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

25

0000 B2B4 26 BLINK: CPL LED ; flash (complement) the red LED

0002 120007 27 CALL DELAY ; call software delay

0005 80F9 28 JMP BLINK ; repeat indefinately

29

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

31 ; SUBROUTINES

32

0007 33 DELAY: ; delay 100ms

34

0007 7FC8 35 MOV R7,#200 ; 200 \* 500us = 100ms

0009 7EE5 36 DLY1: MOV R6,#229 ; 229 \* 2.17us = 500us

000B DEFE 37 DJNZ R6,$ ; sit here for 500us

000D DFFA 38 DJNZ R7,DLY1 ; repeat 200 times (100ms delay)

000F 22 39 RET

40

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

42

43 END

VERSION 1.2h ASSEMBLY COMPLETE, 0 ERRORS FOUND

BLINK PAGE 2

BLINK. . . . . . . . . . . . . . C ADDR 0000H

DELAY. . . . . . . . . . . . . . C ADDR 0007H

DLY1 . . . . . . . . . . . . . . C ADDR 0009H

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

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