C51 COMPILER V7.04 ADCCONT 09/30/2003 10:50:36 PAGE 1

C51 COMPILER V7.04, COMPILATION OF MODULE ADCCONT

OBJECT MODULE PLACED IN ADCCONT.OBJ

COMPILER INVOKED BY: C:\Keil\C51\BIN\C51.EXE ADCCONT.C BROWSE DEBUG OBJECTEXTEND

stmt level source

1 /\* Author : ADI - Apps www.analog.com/MicroConverter

2

3 Date : October 2003

4

5 File : ADCcont.c

6

7 Hardware : ADuC842

8

9 Description : Performs ADC conversions in continuous mode at a

10 rate of 104KSPS (assuming an 2.097152 Mclk).

11 Outputs ADC results via UART. Continuously

12 flashes LED.

13 All rate calculations assume an 2.097152MHz Mclk. \*/

14

15 #include<stdio.h>

16 #include<aduc842.h>

17

18 sbit LED = 0x0B4;

19

20 void adc\_int() interrupt 6{

21 1 printf("%02BX%02BX\n",ADCDATAH,ADCDATAL);

22 1 return;

23 1 }

24

25 void DELAY(int length);

26

27

28 void main(void)

29

30 {

31 1 int CHAN = 0;

32 1

33 1 T3CON=0x083;

34 1 T3FD= 0x02D;

35 1 SCON = 0x052;

36 1

37 1

38 1

39 1 /\* PRECONFIGURE... \*/

40 1

41 1 ADCCON1 = 0x0AC; // power up ADC /8 + 4 acq clock

42 1 ADCCON2 = CHAN ; // select channel to convert

43 1

44 1 /\*LAUNCH CONTINUOUS CONVERSIONS...\*/

45 1

46 1 EA = 1; // enable interrupts

47 1 EADC = 1; // enable ADC interrupt

48 1 CCONV = 1; // begin continuous conversions

49 1

50 1 /\* CONTINUE WITH OTHER CODE... \*/

51 1

52 1 for (;;)

53 1 {

54 2 DELAY(20);

55 2 LED ^= 1; // blink (complement) the LED

C51 COMPILER V7.04 ADCCONT 09/30/2003 10:50:36 PAGE 2

56 2 }

57 1

58 1 // the micro is free to continue with other tasks (flashing the LED in

59 1 // this case) while the ADC is continuously converting, and results

60 1 // are being handled by the ADC interrupt service routine.

61 1

62 1 }

63

64 void DELAY(int length)

65 {

66 1 while (length >=0)

67 1 length--;

68 1 }

MODULE INFORMATION: STATIC OVERLAYABLE

CODE SIZE = 122 ----

CONSTANT SIZE = 12 ----

XDATA SIZE = ---- ----

PDATA SIZE = ---- ----

DATA SIZE = ---- ----

IDATA SIZE = ---- ----

BIT SIZE = ---- ----

END OF MODULE INFORMATION.

C51 COMPILATION COMPLETE. 0 WARNING(S), 0 ERROR(S)