C51 COMPILER V5.50, DAC842 20/10/03 09:03:14 PAGE 1

DOS C51 COMPILER V5.50, COMPILATION OF MODULE DAC842

OBJECT MODULE PLACED IN DAC842.OBJ

COMPILER INVOKED BY: C:\ADUC\BIN\C51.EXE DAC842.C DB

stmt level source

1 //dac842.c

2 /\*

3 Author: Eckart Hartmann Date:17/10/2003

4 Description of Software:

5 This program demonstrates the DAC functions

6 <A HREF="/mcc/softw/842/dac/Dac842Cfg.html">DacCfg()</A>,<A HREF="/mcc/softw/842/dac/Dac842Out.html">DacO

-ut()</A>,

7 See PrintHelp() for details.

8 This code assumes a 32kHz crystal and 9600 baudrate.

9 Development progress: <A HREF="/mcc/softw/842/dac/Dac842Df.html">Dac842.df</A>

10 \*/

11 #include"..\kei842.h" //;<A HREF="/mcc/softw/842/Kei842Sfr.html">SFR definition file</A>.

12 #include"..\lib842.h" //;<A HREF="/mcc/softw/842/Lib842H.html">Function and variable declaration file</A>.

13 #include<stdio.h> //"stdio.h"

14 #include<ctype.h> //"ctype.h"

15 #include<stdlib.h> //"stdlib.h"

16

17 void PrintHelp(void);

18

19 void main(void)

20 {

21 1 char c1; //Temporary variable.

22 1 char cXRef; //External ref flag ('R' pressed).

23 1 char cChan; //Selected channel.

24 1 int iVal;

25 1 int i1;

26 1

27 1 UrtCfg(0x33,0x832d); //<A HREF="/mcc/softw/842/urt/Urt842Cfg.html">UrtCfg</A> configures UART.

28 1 PrintHelp();

29 1 DacCfg(0x1f);

30 1 while(1)

31 1 {

32 2 if(UrtBsy()&1) //If key pressed.

33 2 { // Act on command.

34 3 while((c1 = \_getkey())=='w'); //Wait if 'w'.

35 3 if(c1=='r' || c1=='R')

36 3 { //Ramp.

37 4 putchar(c1);

38 4 if(c1=='r') cChan = 0;

39 4 else cChan = 1;

40 4 for(i1=0; i1<0x1000; i1++)

41 4 DacOut(cChan,i1);

42 4 }

43 3 else if(c1=='f' || c1=='F')

44 3 { //Full scale.

45 4 putchar(c1);

46 4 if(c1=='f') cXRef = 0;

47 4 else cXRef = 1;

48 4 DacCfg(0x1f+0x60\*cXRef);

49 4 }

50 3 else if(c1=='h') PrintHelp();

51 3 else if(c1=='0' || c1=='1')

52 3 {

53 4 putchar(c1);

54 4 putchar(':');

55 4 cChan = c1-'0';

56 4 iVal = (getchar()-'0')\*1000;

57 4 iVal += (getchar()-'0')\*100;

58 4 iVal += (getchar()-'0')\*10;

C51 COMPILER V5.50, DAC842 20/10/03 09:03:14 PAGE 2

59 4 iVal += (getchar()-'0');

60 4 DacOut(cChan,iVal);

61 4 } }

62 2 }

63 1 }

64 void PrintHelp(void)

65 {

66 1 printf("To change settings during conversions press one of:\n");

67 1 printf("\t f for Vref full scale.\n");

68 1 printf("\t F for AVdd full scale.\n");

69 1 printf("\t r to ramp DAC0 full scale.\n");

70 1 printf("\t R to ramp DAC1 full scale.\n");

71 1 printf("\t 0 plus 4 digits for that output on DAC0.\n");

72 1 printf("\t 1 plus 4 digits for that output on DAC1.\n");

73 1 printf("\t h for this help screen.\n");

74 1 printf("\t w to wait.\n");

75 1 printf("Press a key to end help.\n\n");

76 1 \_getkey();

77 1 }

78

MODULE INFORMATION: STATIC OVERLAYABLE

CODE SIZE = 407 ----

CONSTANT SIZE = 321 ----

XDATA SIZE = ---- ----

PDATA SIZE = ---- ----

DATA SIZE = 2 7

IDATA SIZE = ---- ----

BIT SIZE = ---- ----

END OF MODULE INFORMATION.

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