;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

;

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

;

; Date : April 2002

;

; File : ADCldr.asm

;

; Hardware : ADuC814

;

; Description : Performs repeated single ADC conversions on ADC0

; Adjusts output of DAC0 to vary with LDR

; lnk 6 needs to be in position B

; lnk 7 needs to be in position B

; lnk 8 needs to be on

; lnk 5 needs to be on

;

;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

$MOD814 ; Use 8052&ADuC814 predefined symbols

CHAN EQU 1 ; convert this ADC input channel..

; ..chan values can be 0 thru 6

;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

; BEGINNING OF CODE

CSEG

ORG 0000h

JMP MAIN ; jump to main program

;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

; INTERRUPT VECTOR SPACE

;====================================================================

; MAIN PROGRAM

ORG 004Bh

MAIN:

; PRECONFIGURE...

MOV ADCCON1,#080h ; power up ADC

MOV ADCCON2,#CHAN ; select channel to convert

MOV DACCON,#03DH ; Dac 0 0-5V 12bits

SETB EA ; enable interrupts

SETB EADC ; enable ADC interrupt

; PERFORM REPEATED SINGLE CONVERSIONS...

AGAIN: MOV A,#01H ; Delay length

SETB SCONV ; innitiate single ADC conversion

; ADC ISR is called upon completion

JNB ADCI,$

MOV DAC0H,ADCDATAH

MOV DAC0L,ADCDATAL

JMP AGAIN

;\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

END