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; Author : ADI - Apps

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; Date : January 2001

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; File : Blink.asm

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; Hardware : ADuC816

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; Description : Blink LED with 100mSec delay for MicroConverter DEMO

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$MOD52 ; Use 8052 predefined Symbols

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; BEGINNING OF CODE

CSEG ; Defines the following as a segment of code

ORG 0000h

JMP MAIN

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; MAIN PROGRAM

ORG 0060h

MAIN:

MOV A,#01H ; Set up delay = A\*100mSecs.

BLINK: CPL P3.4 ; blink LED using compliment instruction

CALL DELAY ; Call Software delay 100mS

JMP BLINK ; Jump to Blink

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; SUBROUTINES

DELAY: ; Delays by 13,000 \* A instructions (approx)

; 100mSec based on 1.5728MHZ Core Clock (default)

MOV R0,A ; Acc holds delay variable

DLY0: MOV R1,#65 ; Set up delay loop0

DLY1: MOV R2,#200 ; Set up delay loop1

DJNZ R2,$ ; Dec R2 200 times

DJNZ R1,DLY1 ; Dec R1 65 times

DJNZ R0,DLY0 ; Dec R0 #ACC times

RET ; Return from subroutine

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END