

義隆電子股份有限公司 ELAN MICROELECTRONICS CORP.

TITLE:

How to Implement Infrared function with EM57000 series ?

REVISED DATE	:	13, JUNE, 1998
REVISED VERSION	:	1.0
APPLY TO CHIPS	:	EM57000 Series Chip (Except EM57001,EM57400)
APPLY TO SOFTWARE	:	ALL EM57000 series coding system above version 2.1

SEE ALSO:

- 1. EM57000 series contain infrared function (EM57001 and EM57400 don't have infrared function) which can generate 38K Hz square wave to ouside world from port 3.2 whenever it needs.
- 2. To activate infrared function, programmer should control bit 2, bit3 and bit4 of mode register :

When bit4,3,2 of mode register is "101", infrared function will be activated. When bit4,3,2 of mode register is "000", infrared function will be disabled.

MODE = 101?B => Enable infrared function. MODE = 000?B => Disable infrared function.

Note that for bit 0 of mode register we mark it as ? means this bit can be "1" or "0". This bit have no relation with infrared function. bit 0 of MODE register can be used to enable/disable flash with volume.

- 3. User will need to enable port 3.2 by seting bit 2 of P3S as "0" so that 38K Hz square wave can send to outside world. But status of Port 3.2 can be "1" or "0"
- 4. Following is a simple example, it show you how to implement infrared function :

#0000B ; Enable port 3.2 MOV Α, MOV P3S A MOV #0100B ; Initial status of port 3.2 is "1" Α, MOV Ρ3 Α SIGN1: MOV #1010B ; Send out 38 K Hz square Α MOV MODE A



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RSTC

DELAY1: CJC JMP	SIGN2 DELAY1	; P3.2 = 38K Hz ; for 8 mS
SIGN2: MOV MOV	A #0000B MODE A	; Stop 38 K Hz square
DELAY2: CJC JMP	SIGN3 DELAY2	; P3.2 = 1 ; for 8 mS
SIGN3: MOV MOV RSTC	A #1010B MODE A	; Send out 38 K Hz square again
DELAY3: CJC JMP	SIGN4 DELAY3	; P3.2 = 38K Hz ; for 8 mS
SIGN4:		