;File: getkey.a51

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;Development progress: Urt834.df

;

;getkey=========Get a character from UART.

;C Function prototype: char \_getkey(void);

;Description of Function: Gets a key from UART and flags if error.

;User interface: UART must be initialised with \_UrtCfg() before calling

; \_getkey.

; Call \_getkey.

; \_getkey waits for a character to arrive in the UART then

; returns the character. \_getkey sets bit 7 of cUrtVar

; if a parity error is detected.

; Robustness: CD bits bits must be correct when communicating - variable

; cUrtVar (bits 4 to 6) contains the required CD value.

; Will hang if no character arrives.

;Side effects: Overwrites a, cy, p, r1, RI and TI.

;

NAME GETKEY

$NOMOD51

$IC(..kei842.inc) ; Parameter passing registers for Keil .

$IC(..kei842.dat) ; SFR definition for Keil .

;

extrn DATA (cUrtVar)

public \_getkey

;

?PR?\_getkey?GETKEY SEGMENT CODE

RSEG ?PR?\_getkey?GETKEY

USING 0

;

\_getkey:

JNB RI,\_getkey ;while(!RI);

MOV cP1l,SBUF ;r7 = SBUF;

CLR RI ;RI = 0;

mov r1,#cUrtVar ;if(noparity)

mov a,@r1

anl a,#0ch

jb ACC.3,getkQ4

jnb RB8,getkE ; if(!RB8) error();

sjmp getkR

getkQ4: cjne a,#12,getkQ8 ;else if(parity=='e');

mov a,cP1l ; {

mov c,p ; c = p;

sjmp getkQp ; if(c!=RB8) error(); }

getkQ8: mov a,cP1l ;else

mov c,p ; {

cpl c ; c = !p;

getkQp: jb RB8,getk1 ; if(c!=RB8)

cpl c

getk1: jc getkR

getkE: mov a,@r1 ; cUrtVar |= 0x80;

orl a,#80h

mov @r1,a

getkR: ret ; }

;

;Function End==========================================================Function End

END