PIC16C62X

Errata Sheet for Rev. A PIC16C62X Silicon

The PIC16C62X (Rev. A) parts you have received conform functionally to the intended design (refer to the PIC16C62X Preliminary Data Sheet, DS30235B).

Clarifications/Corrections to the Data Sheet:

In the PIC16C62X Data Sheet (document# DS30235B), the AC Specifications are not yet implemented in the device test program. All DC Specifications in the data sheet are tested but the specifications in Table 0-1 are tested to the limits shown.

1. The PORTB pins will change to TTL inputs from Schmitt Trigger inputs on the production revision of the PIC16C62X devices.
2. The max. specification for Brown-out Detect current, ΔI_{BOD}, changes to 400 μA.

TABLE 0-1: DC SPECIFICATION LIMITS THAT VARY FROM DATA SHEET

DC Characteristics		Operating Temperature -40°C ≤ T_A ≤ 85°C					
Characteristic	Sym.	Tested		Data Sheet		Units	Condition
		Min.	Max.	Min.	Max.		
Input Low Voltage I/O TTL Buffer	V_{IL}	V_{SS}	0.5	V_{SS}	0.8	V	
Input High Voltage - Schmitt Trigger Buffer (I/O) - OSC1	V_{IH}	 0.8 V_{DD} 0.9 V_{DD}	 V_{DD} V_{DD}	 0.85 V_{DD} 0.85 V_{DD}	 V_{DD} V_{DD}	 V V	 In RC mode [1]

Note 1: In RC mode, the OSC1 pin is a schmitt Trigger input buffer.

Note: As with any windowed EPROM device, please cover the window at all times, except when erasing.

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3. Changing the PORTB pins to TTL inputs from Schmitt Trigger inputs will affect the following tables and figures in DS30235B:

a) Table 3-1 and Table 5-3 of DS30235B will change to:

TABLE 3-1: PIC16C62X PINOUT DESCRIPTION

Name	DIP SOIC No.	SSOP No.	I/O/P Type	Buffer Type	Description
OSC1/CLKIN	16	18	I	ST/CMOS	Oscillator crystal input/external clock source input.
OSC2/CLKOUT	15	17	O	—	Oscillator crystal output. Connects to crystal or resonator in crystal oscillator mode. In RC mode, OSC2 pin outputs CLKOUT which has 1/4 the frequency of OSC1, and denotes the instruction cycle rate.
$\overline{MCLR}$/VPP	4	4	I/P	ST	Master clear (reset) input/programming voltage input. This pin is an active low reset to the device.
					PORTA is a bidirectional I/O port.
RA0/AN0	17	19	I/O	ST	Analog comparator input
RA1/AN1	18	20	I/O	ST	Analog comparator input
RA2/AN2/VREF	1	1	I/O	ST	Analog comparator input or VREF output
RA3/AN3	2	2	I/O	ST	Analog comparator input /output
RA4/T0CKI	3	3	I/O	ST	Can be selected to be the clock input to the TMR0 timer/counter or a comparator output. Output is open drain type.
					PORTB is a bidirectional I/O port. PORTB can be software programmed for internal weak pull-up on all inputs.
RB0/INT	6	7	I/O	TTL/ST[1]	RB0/INT can also be selected as an external interrupt pin.
RB1	7	8	I/O	TTL	
RB2	8	9	I/O	TTL	
RB3	9	10	I/O	TTL	
RB4	10	11	I/O	TTL	Interrupt on change pin.
RB5	11	12	I/O	TTL	Interrupt on change pin.
RB6	12	13	I/O	TTL/ST[2]	Interrupt on change pin. Serial programming clock.
RB7	13	14	I/O	TTL/ST[2]	Interrupt on change pin. Serial programming data.
VSS	5	5,6	P	—	Ground reference for logic and I/O pins.
VDD	14	15,16	P	—	Positive supply for logic and I/O pins.

Legend: O = output I/O = input/output P = power
— = Not used I = Input ST = Schmitt trigger input

Note 1: This buffer is a Schmitt Trigger input when configured as the external interrupt.
2: This buffer is a Schmitt Trigger input when used in Serial Programming Mode.

TABLE 5-3:PORTB FUNCTIONS

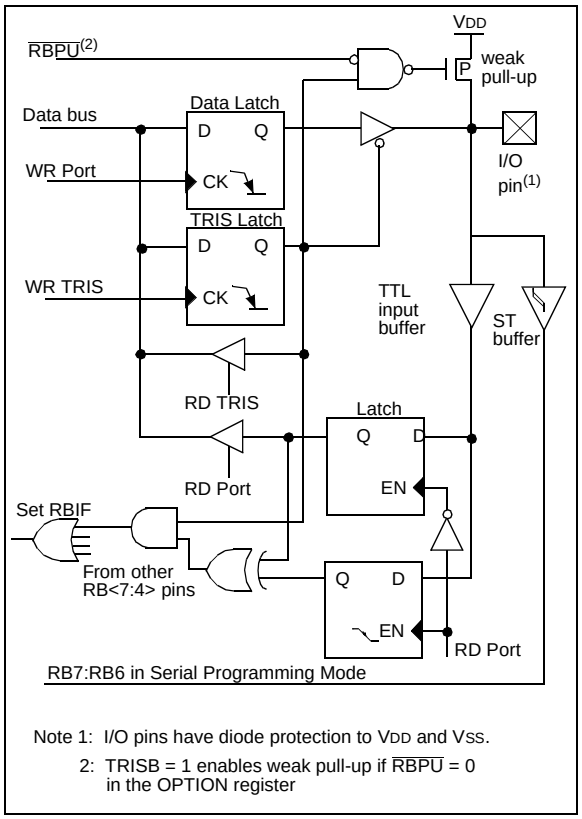
Name	Bit	Buffer Type	Function
RB0/INT	bit0	TTL/ST[1]	Input/output pin or external interrupt input. Internal software programmable weak pull-up.
RB1	bit1	TTL	Input/output pin. Internal software programmable weak pull-up.
RB2	bit2	TTL	Input/output pin. Internal software programmable weak pull-up.
RB3	bit3	TTL	Input/output pin. Internal software programmable weak pull-up.
RB4	bit4	TTL	Input/output pin (with interrupt on change). Internal software programmable weak pull-up.
RB5	bit5	TTL	Input/output pin (with interrupt on change). Internal software programmable weak pull-up.
RB6	bit6	TTL/ST[2]	Input/output pin (with interrupt on change). Internal software programmable weak pull-up. Serial programming clock.
RB7	bit7	TTL/ST[2]	Input/output pin (with interrupt on change). Internal software programmable weak pull-up. Serial programming data.

Legend: TTL = TTL input, ST = Schmitt Trigger

Note 1: This buffer is a Schmitt Trigger input when configured as the external interrupt.
2: This buffer is a Schmitt Trigger input when used in Serial Programming Mode.

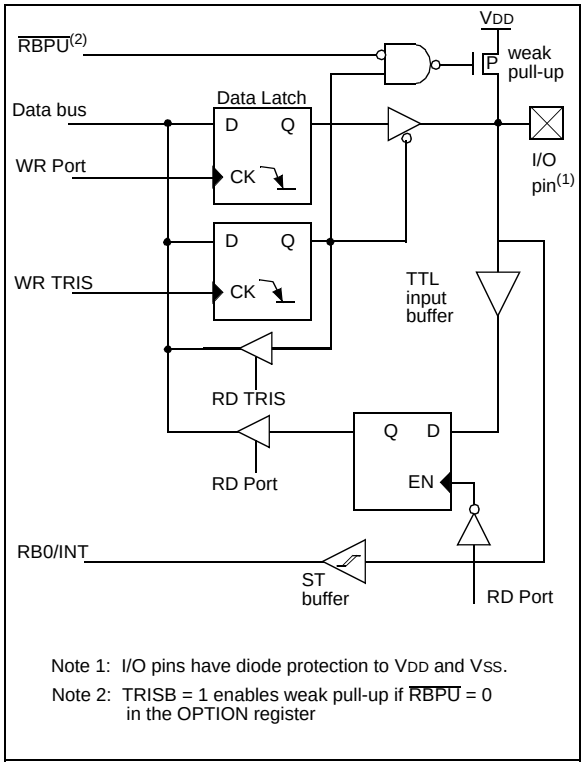
b) Figure 5-5 and Figure 5-6 of DS30235B will change to:

FIGURE 5-5: RB7:RB4 PINS



Note 1: I/O pins have diode protection to VDD and VSS.
2: TRISB = 1 enables weak pull-up if $\overline{RBPU}$ = 0 in the OPTION register

FIGURE 5-6: RB3:RB0 PINS



Note 1: I/O pins have diode protection to VDD and VSS.
Note 2: TRISB = 1 enables weak pull-up if $\overline{RBPU}$ = 0 in the OPTION register

c) Section 12-3, Input Low Voltage (VIL) and Input High Voltage (VIH) will change to:

12-3: DC Characteristics: PIC16C62X (Commercial, Industrial)

Characteristic	Sym	Min	Typ †	Max	Units	Conditions
Input Low Voltage						
I/O ports	VIL					
with TTL buffer		VSS	-	0.8V	V	
with Schmitt Trigger buffer		VSS	-	0.2VDD	V	
Input High Voltage						
I/O ports	VIH		-			
with TTL buffer		2.0	-	VDD	V	4.5V ≤ VDD ≤ 5.5V
with Schmitt Trigger buffer		0.8VDD	-	VDD		For entire VDD range

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