

PIC12LF1840T48A/T39A Programming Specification

This document includes the programming specifications for the following devices:

- PIC12LF1840T48A
- PIC12LF1840T39A

1.0 OVERVIEW

The PIC12LF1840T48A/T39A is a dual-die device containing a Microchip PIC12LF1840 microcontroller and an integrated transmitter. The dies are electrically isolated.

Since the microcontroller portion of this device is a standard PIC12LF1840, programming should be done according to its programming specification, “PIC16(L)F1847/12(L)F1840 Memory Programming Specification” (DS41439).

The transmitter contains no user-programmable memory.

Care should be taken to prevent the transmitter from transmitting during the programming cycle. In-Circuit Serial Programming™ (ICSP™) pins should not be connected to the DATA pin. If the transmitter VDD supply is separate from the microcontroller, it should be kept at VSS during the programming cycle.

1.1 Pin Utilization

Five pins are needed for ICSP™ programming. Two additional pins should be connected to ground during programming. The pins are listed in [Table 1-1](#).

TABLE 1-1: PIN DESCRIPTIONS DURING PROGRAMMING

Pin Name	During Programming		
	Function	Pin Type	Pin Description
RA1	ICSPCLK	I/O	Clock Input – Schmitt Trigger Input
RA0	ICSPDAT	I/O	Data Input/Output – Schmitt Trigger Input
RA3/MCLR/VPP	Program/Verify mode	P ⁽¹⁾	Program mode Select/Programming Power Supply
VDD	VDD	P	Microcontroller Power Supply
VSS	VSS	P	Microcontroller Ground
VDDRF	VDD	P	RF Power Supply
VSSRF	VSS	P	RF Ground

Legend: I = Input, O = Output, P = Power

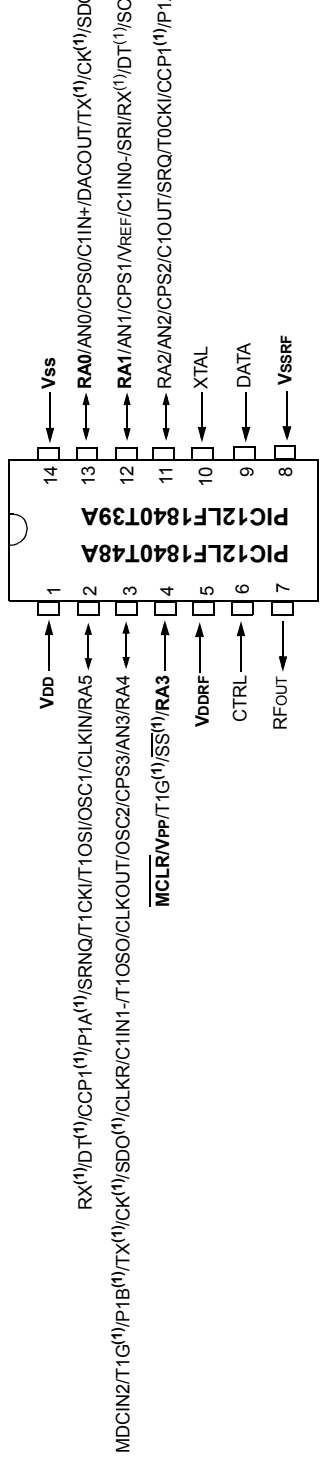
Note 1: The programming high voltage is internally generated. To activate the Program/Verify mode, high voltage needs to be applied to MCLR input. Since the MCLR is used for a level source, MCLR does not draw any significant current.

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2.0 DEVICE PINOUTS

The pin diagram for the PIC12LF1840T48A/T39A is shown in [Figure 2-1](#). The pins that are required for programming are listed in [Table 1-1](#) and shown in bold lettering in the pin diagram.

FIGURE 2-1: 14-PIN DIAGRAM, PIC12LF1840T48A/T39A (TSSOP)



Note 1: Pin function is selectable via the APFCON register.

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APPENDIX A: REVISION HISTORY

Revision A (08/2011)

Initial release of this document.

Revision B (03/2012)

Added the PIC12LF1840T39A device.

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