FORM 4

### **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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# STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  DREHOBL STEPHEN V                                |            |                     | 2. Issuer Name and Ticker or Trading Symbol MICROCHIP TECHNOLOGY INC [ MCHP ] |            | tionship of Reporting Person(s) to Issuer all applicable) Director 10% Owner Officer (give title Other (specify |           |  |
|--|------------|---------------------|---|------------|---|-----------|--|
| (Last) (First) (Middle) C/O MICROCHIP TECHNOLOGY INCORPORATED 2355 WEST CHANDLER BOULEVARD |            | CORPORATED          | 3. Date of Earliest Transaction (Month/Day/Year) 08/01/2010                   |            | vP, Security, MCU & Tech Div.   |           |  |
| (Street) CHANDLER (City)   | AZ (State) | 85224-6199<br>(Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year)                      | 6. Individ | dual or Joint/Group Filing (Ct<br>Form filed by One Reportir<br>Form filed by More than O                       | ng Person |  |

## Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Code (Instr. |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |               |         | Beneficially Owned<br>Following Reported | 6. Ownership<br>Form: Direct (D)<br>or Indirect (I)<br>(Instr. 4) | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership |
|---------------------------------|--|---|--------------|---|---|---------------|---------|--|---|---|
|                                 |  |   | Code         | v | Amount  | (A) or<br>(D) | Price   | Transaction(s)<br>(Instr. 3 and 4)       |   | (Instr. 4)  |
| Common Stock                    | 08/01/2010                                 |   | M            |   | 3,200   | A             | \$30.65 | 11,461                                   | D   |   |
| Common Stock                    | 08/01/2010                                 |   | F            |   | 981   | D             | \$30.65 | 10,480                                   | D   |   |
| Common Stock                    | 08/02/2010                                 |   | М            |   | 862   | A             | \$30.65 | 11,342                                   | D   |   |
| Common Stock                    | 08/02/2010                                 |   | F            |   | 265   | A             | \$30.65 | 11,077                                   | D   |   |

# Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of<br>Derivative<br>Security (Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transac<br>Code (Ir<br>8) |   | Derivative |       | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and Amount of<br>Securities Underlying<br>Derivative Security (Instr. 3<br>and 4) |                                  | Derivative | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported | Form:<br>Direct (D) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|--|---|--|---|---------------------------------|---|------------|-------|--|--------------------|--|----------------------------------|------------|--|---------------------|--|
|  |   |  |   | Code                            | v | (A)        | (D)   | Date<br>Exercisable  | Expiration<br>Date | Title  | Amount or<br>Number of<br>Shares |            | Transaction(s)<br>(Instr. 4)   |                     |  |
| Restricted Stock<br>Units                        | \$30.65   | 08/01/2010                                 |   | M                               |   |            | 3,200 | (1)  | (1)                | Common<br>Stock  | 12,800                           | \$0        | 6,400  | D                   |  |
| Restricted Stock<br>Units                        | \$30.65   | 08/02/2010                                 |   | M                               |   |            | 862   | (2)  | (2)                | Common<br>Stock  | 6,900                            | \$0        | 4,314  | D                   |  |

#### **Explanation of Responses:**

- 1. The restricted stock units vest in four equal quarterly installments beginning May 1, 2010. Vested shares will be delivered to the reporting person upon vest.
- 2. The restricted stock units vest in eight equal quarterly installments beginning February 1, 2010, as long as the individual remains a service provider through the vesting date and the Company achieves performance targets for operating profit in the quarter ending June 30, 2009. Vested shares will be delivered to the reporting person upon vest.

### Remarks:

Deborah L. Wussler, as Attorney-

in-Fact

\*\* Signature of Reporting Person

08/03/2010 Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.